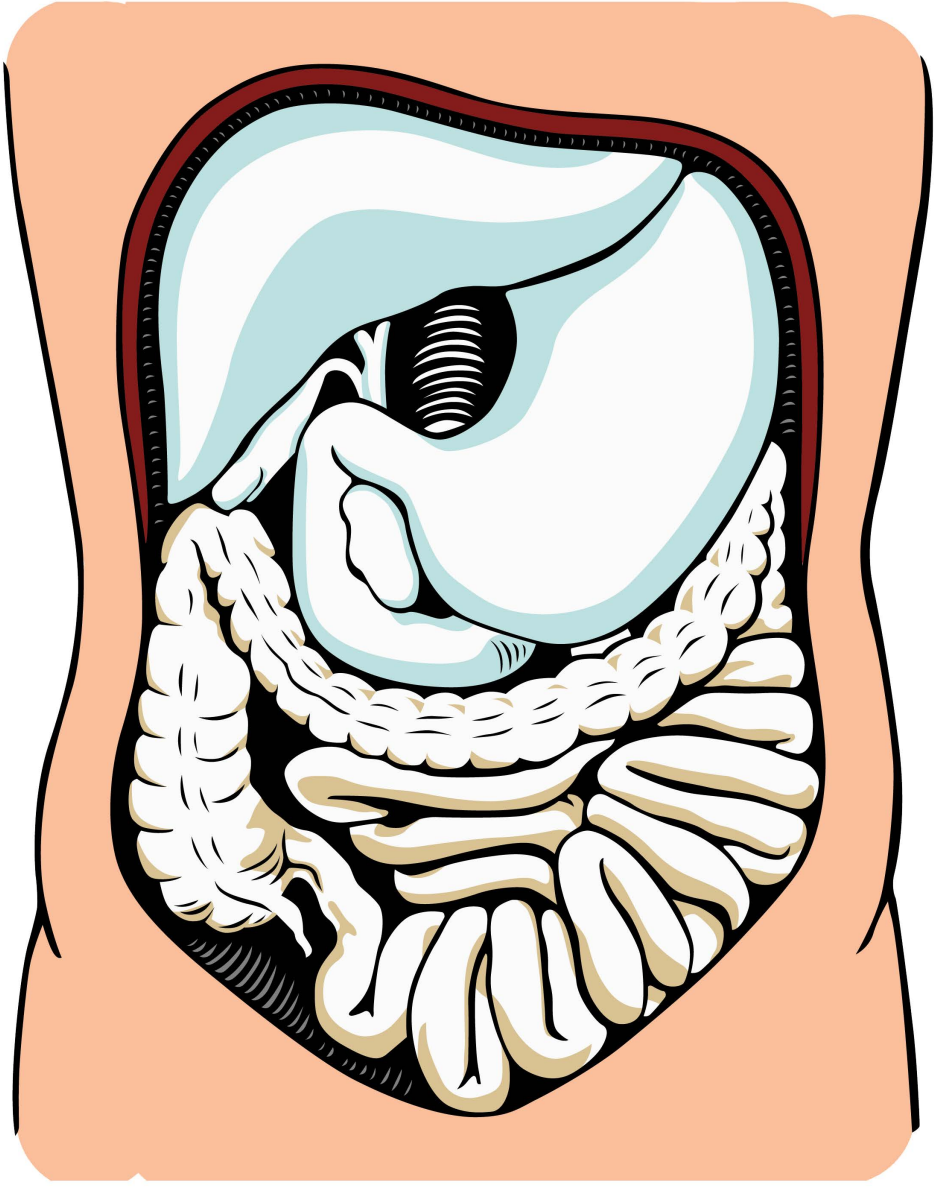
COLON HYDROPATHY

THE CLINICAL EVIDENCE



AND PUBLISHED RESEARCH

Colon Hydropathy

The Clinical Evidence
&
Published Research

The circle with the Cross
These make for the sign that all thou hast heard is fulfilled in Him

Hospitallers Order of the Good News

The Lord He Is God

Trust in Him who Is the Way

Keep thy faith in Him, that All will be and is right!

And make thy life, thy activities in accord with same!

Book Title: Colon Hydropathy The Clinical Evidence & Published Research
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Without Him to lead, and the Team to help, this and all other Books, that have been published by the Order, could have not been written, in a speedy way, that they have been. For the task at hand, is enormous, and the days and nights, I have denied myself, this in and for the benefit of others. For the help, of he who is in need of it. And also that man may know that He, indeed, is mindful of each one of you. Seek Him, and Glorify Him, for He Is Thy God and Saviour.

First Edition: 2028 Book Nº

In Gratitude To

This Book is dedicated to the following:

To the God of Abraham: Who Is The God of Humankind, Our One and Only Lord and Saviour The Christ.

We Dedicate this Book to: to all those who have perished at the hands of ignorant men; To all those Wise Men who understood the difference between what is right and what is wrong; To those wise ones, who are ever present and let not fall civilization.

"The Lord He Is God"

Has in the Oneness of the Living God the Christ Our Lord and Saviours, so it is in the oneness of comprehension and understanding in which those points of truth these authors all conclude and agree upon.

And as a result on which they all agreement this book is produced and given as a testimony that: "The Lord He Is God", and the Lord walks with us everyday, even if you do not see Him, He is with us, He is with those who ask for Him for the Lord Is God of Humankind.

These are not vain words, but are those words from those who know The Lord, His Ways, His Coming.

And many others whose names do not appear here but they know who they are.

To all physicians, whose convictions regarding the soundness of principles set forth in this work, and whose fearless advocacy of therapy based on these principles have been a constant source of encouragement and inspiration to many, this book is also dedicated.

Acknowledgements

The collective knowledge generated from academic research summarized in various references has been critical in the creation of this published work, which is best viewed as a comprehensive compilation and collection of published information by many authors throughout the ages, as well as personal and clinical experience in the treatment of self and others.

This work was possible only by the guidance and Light of Christ who Is God. A special thanks also to those who work with Him and help all of us. May each individual be able, to find this eternal truth, while on earth.

Credits and References

Although all credits and references where given to the best of our knowledge and information contained in the central archives of the Hospitallers Order of the Good News.

If there is any errors or mistakes we kindly ask the reader to allow the knowledge of such items in order to rectify same in future editions of the present Book.

Health and Therapeutic Journals and Books

The present work rests upon the foundations of those civilization luminaries, men and woman of exceptional talent, intuition, and detailed observation. Furthermore it was a privilege to us, for them to have the dedication and time to write and publish their clinical findings.

There is then a vast amount of Journals and Books devoted to the Health and Therapeutics. Of these printed records those from 1850 to 1950 in this one hundred year period we specially encounter that the majority of what is to be known concerning disease its origin and its treatment and

cure, where in fact correctly identified. These records, in their collective, contain timeless observations of which many remain permanent truths. These pearls are hidden from plain sight, only the adept or the initiated can identify them and pick one by one, from the surrounding confusion.

Sources

This book is a Record of the clinical findings of many great Health Practitioners, their findings remain the same throughout the centuries. All share the same conclusion.

The Truth is in plain site.

Apart from the Archives of the Hospitallers Order of the Good News Library, we are also very grateful to all libraries, who have kept books for the last 200 years, those of which by their keeping allowed the information on those books to survive, and be upon their withdrawn from their keeping available to purchase by the Order, and kept in its Archives and Library.

The Hospitallers Order of the Good News, has therefore obtained many of this rare Books, many of which are not available, nor found in libraries, for this we thank The Lord who Is God, for having placed the same in keeping of the Order.

Errors & Omissions

Although the editor, publisher have made every effort to ensure that the information in this book was correct at press time, the editor, publisher do not assume and hereby disclaim any liability to any party, for any loss, damage, or disruption caused by errors or omissions, whether such errors or omissions result from negligence, accident, or any other cause. Much care was taken to avoid any errors or omissions, if any do exist, please let us know, in order to correct same in any future editions.

Dedication

To all the Clinicians that have taken their time to record the information here given. And To Him, To Whom Health is Wealth, This Book is Dedicated.

Disclaimer

"The content of this Book is based on research conducted by the Members of the Hospitallers Order of the Good News, unless otherwise noted. The information is presented for educational purposes only and is not intended to diagnose or prescribe for any so-called "medical" or "psychological" "condition", nor to prevent, treat, mitigate or cure such "conditions". The information contained herein is not intended to replace a one-on-one relationship with a qualified healthcare professional. This information is not intended as "medical" advice, but rather a sharing of knowledge and information based on research and experience. The Hospitallers Order of the Good News encourages the reader to make your own health Care decisions based on your judgment and research in partnership with a qualified Health Care Professional. These statements have not been evaluated by the Food and Drug

Administration, in the USA. The information on this Book is not intended to diagnose, treat, cure or prevent any disease."

As sad it may be, that one is forced to place such a disclaimer, just serves to illustrate the state where the present civilization is at the moment.

A civilization founded on lies has no future, a civilization based on false or fake pretences has no future, a civilization that follows political correctness is fake by proxy.

To sustain the present civilization is to sustain a lie. Thus the solution is to establish a new civilization, this if Humankind will ever have a chance to develop on Earth.

In that the End of Times and the Beginning of a New Era, 2028.

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Appendix

Table I

Introduction

The present book is the continuation of the book:

"Colon Hydropathy: The Clinical Evidence & The Health Conditions That Helps To Resolve", 2020.

The reason for this second tome is 2 fold:

1. Some of the articles (due to their detailed clinical observations and research) are of great value, thus merit its publication in extension, by doing so, one book would be too voluminous, but by placing the available clinical published research on the present subject in 2 or more books, it makes these more easily to handle.
2. The second reason is that some of the articles where in potential copyright in 2020.

All Articles specific to Technique, Methods and Procedures are given in full on the Colon Hydropathy Course Manual of the Volksmed School of Health and Pharmacology.

Important Notice

Please be aware that this book is neither a "Training Manual", nor a "Manual" of any kind to perform Enemas or Colonic Irrigations.

Both Enemas and Colonic Irrigations not performed by a Clinically Trained Therapist, or Practitioner in Colon Hydropathy should not be done.

Certain Enemas and Colonic Irrigations, wrongly performed, and in certain conditions can be fatal.

A full list of contraindications are not shown, nor are given in this book.

Those wishing to train and qualify professionally in the proper administration of both Enemas and Colonic Irrigations these given correctly and in a safe manner in the Colon Hydropathy, should apply to:

Volksmed School of Health and Pharmacology

www.volksmed.org

Which is owned and run by the Hospitallers Order of the Good News, a not-for-profit organization.

Please be aware that the Medical Trade in its present state is clueless on the methods of Colonic Irrigations.

Only the Order has achieved the level of sophistication, and technical knowledge, which is reflected in its extensive Clinical Training Manuals given during the Colon Hydropathy Clinical Training Courses:

1. Therapist in Colon Hydropathy
2. Clinical Practitioner in Colon Hydropathy

The Next Volumes of these series, should be published in due time:

Colon Hydropathy: Further Clinical Evidence Research III
Colon Hydropathy: Further Clinical Evidence Research IV
Colon Hydropathy: Further Clinical Evidence Research V
Colon Hydropathy: Further Clinical Evidence Research VI

Chapter 1

The Colon as a Focus of Infection

"About half of Americans ages 60 to 80 have Diverticulosis, a condition in which pea-sized pouches, called Diverticula, bulge outward from the colon. After age 80, almost everyone has it." *- in "Defend yourself from diverticulitis", Harvard Health, 3 February 2021.*

"Colorectal Cancer is the 3rd most common cancer, and the 2nd leading cause of cancer death in the world." *- in "Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries", CA: A Cancer Journal for Clinicians, November 2018.*

"Chronic liver disease with cirrhosis is the 12th leading cause of death in the United States, and alcoholic liver disease accounts for approximately half of all cirrhosis deaths. Chronic alcohol consumption is associated with intestinal bacterial dysbiosis, yet we understand little about the contribution of intestinal fungi, or mycobiota, to alcoholic liver disease." - in "Intestinal fungi contribute to development of alcoholic liver disease", The Journal of Clinical Investigation, 2017.

Intestinal Putrefaction

"Excess of food ingested will universally induce such putrefactive processes, which in infancy and childhood are exhibited in the bowel diseases of early life, and can with reasonable certainty be differentiated from deflections by other causes, by the odour and appearance of the dejecta.

This phase of intestinal indigestion is due to the primary action of certain bacteria on albumen and albumenoid substances which have slipped past the duodenal gateway without receiving the vito-chemical touch necessary to render them harmless, is intermittent and transient and of little consequence until by constant repetition it becomes a menace to the general organism.

The toxic elements generated in this process sooner or later render glandular and cell environments of the intestinal tube altogether unhealthful.

The air patients breathe, the water they drink, and the food they eat are charged with a miasm which absolutely forbids a healthy reaction; hence most complicated and decidedly serious pathologic conditions arise.

Another chief source of intestinal indigestion arises from the inability of the tube below the pylorus to successfully cope with the relatively enormous quantities of carbohydrates and hydro-carbons that are daily and continually ingested.

In the second stage of intestinal indigestion the whole lining membrane of the intestine is thoroughly catarrhal, its epithelial investment is no longer capable of performing its allotted work with any sort of regularity and normality.

The villi are practically paralyzed and entirely cease selective absorption.

The whole glandular structure is undergoing degenerative and thickening processes; the ileo-cecal valve is paralyzed, the cecal end of the colon now fails in its peristaltic movements, the valvular opening to the appendix is permanently relaxed, admitting into the tube whatever may be in the vicinity of its mouth, hence the

frequency of appendicitis. The colon becomes thickened throughout its entire structure; the colonic valves becomes lengthened and thickened.

The further changes that take place in intestinal indigestion were pointed out by the essayist.

In the third stage we have a large grouping of diseases which, when studied from this point of view, arrange themselves in most orderly sequence around their cause.

They mainly consist in such forms of pathologic action as result in speedy dissolution, as, for instance, hasty consumption of the lungs, the forms of Bright's disease that run a rapid and fatal course, and consumption of the mesenteric glands.

Many, if not all of the rapidly fatal diseases of the nervous system belong to this grouping.

In conclusion, the author said that any form of treatment instituted for the relief and cure of intestinal indigestion must necessarily include a careful consideration of the stomach and colon; that very little, if any, amelioration of symptoms will result unless they are both rationally included.

Inasmuch as the colon is within easy reach via the rectum, it is the author's experience that Colonic Baths are immensely useful in the general treatment and care of patients suffering with intestinal indigestion." - Dr A. P. Buchman, MD in "Intestinal Indigestion", Medical Mirror, December 1894.

Some of the Causes of Constipation

"Increased excretion of water through the skin and lungs or the kidneys causes constipation, unless the greater loss is compensated for by abundant drinking.

Here it is partly due to a more rapid absorption of the liquids taken into the alimentary canal, and partly to a reduction of the proportion of water, and also of the quantity of the digestive juices poured into the intestine. The consequence of this quickened absorption and diminished secretion is a thickening of the intestinal contents, occurring not only more promptly, even in the ileum, but also going on to a greater degree especially in the colon.

And now, whether it is that drier masses, especially in the ileum, offer more opposition to normal peristaltic action, or because the contents of the intestine, in consequence of increased absorption of water and diminished secretion of the intestinal juices, lose those stimulating qualities which enable them at other times to excite reflex peristaltic action, the evacuations become less frequent and firmer, and constipation appears.

On the other hand, free drinking of water, if the amount that can be absorbed is less than that taken in, often causes diarrhoea, and the relation between absorption by the intestines and excretion of water through the skin, lungs, and kidneys, which is entirely analogous to what has been already mentioned, shows itself in the reduction of the diuresis, of the perspiratio insensibilis, the dryness of the tongue, the thirst when the evacuations are profuse, and also in the appearance, which is sometimes noticed, of profuse diarrhoea when the function of the kidneys is suddenly arrested.

But just as under these circumstances the diarrhoea depends upon a contemporaneous increase of the peristaltic action, so in the cases of constipation due to an abnormally increased loss of water, the cause must be thought to lie mainly in a consequent diminution of the peristaltic action.

The constipation which appears during increased

perspiration, under different physiological and voluntarily established conditions (sweat cures), or during certain diseases (acute rheumatism, phthisis, intermittent fever), the constipation of puerperal women (increased by the relaxation of the abdominal pressure which favours the emptying of the rectum, and by the loss of water caused by the secretion of milk), and the constipation which accompanies diabetes, all must receive the same explanation.

The constipation which is often seen in fever is due, partly to the increased escape of water through the skin and lungs, partly to the reduced secretion of intestinal juices caused directly by the fever, and partly to the less amount of nourishment taken.

The constipation observed during "fasting cures" depends upon the two last-named causes, the constipation of voluntary abstention from water (Schroth's cure) upon a reduction of the amount of water drunk, and the constipation accompanying stricture of the pylorus upon a reduction in the amount of water and nourishment taken, and upon a consequently diminished secretion of intestinal juices.

Colon Physiology

As for the constipation caused by diminution in the amount of the digestive juices, we have already alluded, when speaking of that due to free withdrawal of water through the skin or kidneys, to that occurring during fever, and that caused by a reduction in the amount of water or nourishment introduced into the body.

In the jaundiced, if the passage of the bile into the intestine is hindered, constipation is a regular symptom. It has thence been inferred that bile is a stimulant of peristaltic action. I am more inclined to ask if the retarded peristaltic action is not rather the result of accumulation of the biliary acids in the blood, which may affect the movements of the intestines as they do those of the heart, especially as the nervous system of the intestine is very similar to that of the

heart (ganglion cells, inhibitory and exciting fibres).

In chronic cases of icterus due to obstruction, the chronic catarrh certainly influences the reduction of the peristaltic action.

Moreover, the fact that in icterus due to obstruction, the not inconsiderable quantity of liquid which, under normal conditions, flows every 24 hours into the intestine with the bile, is withdrawn, may, under certain circumstances, assist in producing constipation.

Peristaltic action of the intestine is not only excited by reflex irritations acting upon its mucous membrane, but the centres of innervation, lying in the brain and spinal cord, also send directly exciting and inhibiting impulses to it through the pneumogastric and splanchnic nerves.

Furthermore, the intestine possesses "independent" centres of innervation lying within its walls, in the form of a double ganglionary system, of a plexus myentericus Auerbachii, situated between the longitudinal and circular muscular layers, and of a nerve plexus in the submucosa discovered by Meissner. Just as joy and fear, or great fright, sometimes excite such active peristaltic action that diarrhoea ensues, so do we find, also, that conditions of mental depression (hypochondria, melancholia) and sometimes hysteria also (tympanites hystericus), notably reduce the activity of the intestine. From these cases, in which habitual constipation is the result of a hypochondria arising from central causes by a purely mental process, must be distinguished those in which, on the contrary, the habitual constipation becomes the starting-point of a mental derangement which may go on to the grave forms of hypochondria.

To the interruption of motor nerve trunks must be attributed those cases of constipation which are always observed in certain affections of the spinal cord associated with paralysis of the limbs (myelitis, degenerative processes, transverse separations), and in many of these cases the consequent paralysis of the abdominal muscles, which aid materially in emptying the rectum, must also be taken into consideration. For many, bodily exercise is a means of

exciting peristaltic action. (Its influence is often paralysed by profuse perspiration.) The more frequent respiration thereby induced, the in creased action of the diaphragm and abdominal muscles, seem to act like massage of the abdomen, a procedure which was employed in ancient times to promote action of the bowels.

It is possible, also, that the change in the distribution of the blood, caused by bodily activity, has some influence, for every change in the supply of blood to the intestine seems to excite peristaltic action (Schiff, Donders).

On the other hand, constipation affects the bedridden and those who lead a very sedentary life. In many cases the lack of bodily exercise causes constipation, indirectly, by means of a chronic intestinal catarrh.

While diarrhoea usually accompanies acute catarrh, in consequence of increased excitability of the intestinal mucous membrane (it is generally so, too, in cases of intestinal ulcer), the chronic catarrh of adults is always associated with constipation. It sometimes extends over the entire canal (when the portal circulation is obstructed, whether directly by cirrhosis, tumours occupying the concavity of the liver, or indirectly by affections of the heart and lungs which have led to inefficiency of the right ventricle and to obstruction of the flow through the vena cava), sometimes over only a large portion of the ileum or colon.

The cause of constipation in chronic catarrh lies in the diminution of reflex excitability due to swelling, tumefaction, and hypertrophy of the mucous membrane.

Perhaps, too, it is aided by changes (which have been made too much of in many quarters) in the quality and quantity of the digestive juices, the secretion of a very tenacious mucus, which acts like a solution of gum.

The principal cause of the constipation is to be found unquestionably in the muscular coat itself, which in all protracted cases participates in the abnormal nutritive processes carried on within the mucous membrane and becomes flaccid, in the same way as do the bronchial muscles in chronic bronchitis, the muscular coat of the

bladder in chronic cystitis, and that of the stomach in gastric catarrh.

Another important result of chronic catarrh is the diminution of the elasticity of the intestinal walls.

As a result of this, and the relaxation of the muscular coat, the production of meteorism (swollen abdomen) is favoured.

Under healthy conditions, every great accumulation of gas within the intestine increases the intra-intestinal pressure; the increased pressure excites peristaltic action, perhaps by pressing upon the intestinal ganglia, just as consider able augmentation of pressure in the aortic system quickens the action of the heart; and in this way every great accumulation of gas in the healthy intestine is at once relieved.

In chronic catarrh, on the other hand, the diminished elasticity of the walls prevents the accumulation of gas from increasing the intra-intestinal pressure; peristaltic action, therefore, is not excited, and the condition becomes chronic.

If the healthy adult has, upon an average, 1 or 2 stools within the 24 hours, containing from 120 grams to 180 grams of faeces and 75% of water, there are yet frequent variations lying within the limits of health, both as regards the number of the stools and the quantity of the faeces, which depend upon numerous forces.

Violent colics set in, together with an eager desire to empty the bowels, which the patient in vain attempts to satisfy with exhausting efforts and straining.

Collapse follows, profuse sweat breaks out, the features assume the pinched appearance of the facies abdominalis, the limbs become cold, the pulse small and rapid, the abdomen distended, and not unfrequently vomiting occurs.

If the attempt is made to move the bowels by means of injections, the introduction of the rectal sound meets with great resistance, which often makes it impossible to inject any liquid.

Nothing remains but to pass the finger into the rectum, and thus remove the hard, clay-like, tenacious faecal masses.

If the first obstacle is thus removed, the way is opened for injections (small enemas), whose action is greatly aided by

diarrhoeal masses passed down at the same time from above.

The collapse disappears as rapidly as it came, abundant evacuations take place, and in a short time the patient, from a condition of great pain and anxiety, becomes perfectly comfortable." - Dr. H. von Ziemssen, MD, Professor of Clinical Medicine, Munich, in "Cyclopaedia of the Practice of Medicine", Vol. 7, 1876.

Care of the Colon

"Constipation is one of the disorders that causes premature ageing, and often aids in producing death, it is necessary to know the truth about it, that it may be prevented; or if it is already present, that it can be overcome.

The intestinal walls frequently deteriorate so that the bowel functions are impaired. In the intestinal walls there are numerous muscles.

Though delicate, they are strong, and when the body is fairly treated these muscles are capable of performing their work, which is to send onward the contents of the intestines.

This is accomplished through alternate contractions and relaxations of the muscles, or peristalsis. The internal surface of the intestines is studded with a multitude of glands. Their function (outside of the digestive areas) is to secrete a small amount of lubricant, just enough to keep the bowel contents soft and well

lubricated, but not enough so that large pieces of mucus, either in lumps or in strings, are ejected from the bowels.

The lower intestine is the great waste pipe of the body.

Through thousands of openings waste materials are thrown into this pipe. Waste is always poisonous to the organism that produces it. When the bowels are functioning normally, this waste is thrown out so that it causes no trouble.

But when constipation sets in, the waste may remain in the body a long time, and as a large part of it is dissolved in the moist part of the excretory matter, it is again absorbed into the blood.

That is the reason why constipation is so injurious.

It poisons the blood stream, and a poisoned blood stream destroys beauty, dulls the eye, clouds the skin, decreases the strength, detracts from mental clarity, shortens youth, hastens old age, causes disease, and aids in producing premature death. Constipation is often a part of other ills, and it is frequently the chief cause of other troubles.

Pimples often advertise constipation, and many cases of severe headache recover when constipation is eliminated.

It is most important that the bowels work well.

The bowels are under the control of the nervous system, but the workings are automatic.

We should always cooperate, for then the normal condition will be maintained.

The lower bowel is very sensitive to impressions.

When waste arrives it notifies the nerve center, and the nerve center telegraphs to the conscious mind that waste has arrived and that it should be ejected.

When a call like this comes it should always be heeded.

Many men and women have so much false modesty that they disregard this call, and sometimes go for hours carrying about the waste, and reabsorb a part of it into the blood stream.

The punishment for this is sure and never long delayed.

Every time a call of nature is disregarded the lower bowel grows a little less sensitive, and the power to function decreases. If this disregard continues the time comes when no notifications are sent, and then another case of chronic constipation is established.

The first rule for avoiding the filthy, disgusting condition called constipation is: Invariably obey the calls of nature.

Another cause of constipation is shallow breathing. Correct breathing is partly abdominal.

Every deep breath massages the intestines, gently toning up their action. Also, deep breathing supplies plenty of oxygen to keep the blood stream pure, and pure blood helps to build normal muscles and glands and nerves in every part of the body, the intestines included.

Another cause of constipation is physical inactivity.

One of the laws of health is that a person must work and exercise the body enough to maintain a lively circulation and tonic muscles.

Many fail to do this, and as a result both the muscles and the circulation deteriorate, and one of the common results is constipation.

Another rule for preventing and overcoming constipation is: Take regular exercises every day. Improper eating is the chief cause of constipation.

The refined foods, such as white flour products and white sugar, tend to produce constipation.

So does overconsumption of meat. So does an excessive intake of cheese. The same is true of starch overeating.

Those who overeat of starch eventually become perambulating gas factories. The gas overdistends the intestines, stretching the muscles unduly.

We shall here summarize a few of the eating hints that will help to overcome constipation:

Eat slowly and masticate well; eat moderately; avoid white flour products most of the time and use instead the entire grain products; avoid the consumption of refined sugar, and satisfy your craving for sweets by eating the naturally sweet fruits and honey; eat plenty of the succulent vegetables, for the roughage will help to stimulate bowel action and the salts and juices help to make good blood; eat some raw fruit every day, for the same reason boiling or pasteurizing it; be moderate in your meat intake.

These dietetic principles will prevent constipation; they will also help to overcome an established case.

Some of the commonest laxative foods are:

Prunes, raisins, dates, figs, stewed onions, spinach, and other cooked leafy greens, stewed rhubarb stalks, and pears.

Suppose constipation is already established, what is one to do?

It is better to use a mild laxative, or a small injection of water, or a suppository than to allow the waste material to remain in the body and poison the blood.

But please bear in mind that the constant giving of cathartics makes the constipation worse.

So prevalent is constipation that most individuals have their favourite laxatives. These remedies relieve, but they never cure.

The cure is brought about through correct care of the body.

Take as little of the laxatives as possible, for many cathartics help to establish constipation.

Those who eat right do not develop constipation, if they are sensible otherwise.

Those who live too largely on animal foods such as meats and cheese not only are subject to constipation, but their excretions are excessively poisonous, so much so that constipation is far more injurious to them than it is to those who eat enough of the fresh fruits and fresh vegetables.

The bowels should move at least once a day, better twice daily, and the faecal matter should never be hard and lumpy, nor should there be any offensive odours.

Two satisfactory movements would be fine, and if the bowels can be induced to work both morning and evening, that is splendid.

A time should be set aside for the bowels to function, and this time should be observed every day. You can teach a muscle or other organ of the body to perform; likewise, you can teach the bowels to be regular.

When the constipation is well established it may take months to restore the bowel functions, but those who persist will be rewarded with normally functioning organs.

Deep breathing, exercise, observing the calls of nature, regularity, and correct eating and drinking are the chief curative means. Deep massage of the sides and upper part of the abdomen is helpful in overcoming constipation.

Once more, heed the calls of nature." - Dr Rasmus Larssen Alsaker, MD in "Outwitting Old Age", 1926.

Flushing of the Colon

"I have always been of a bilious temperament, dark skin, foul tongue, etc., often having to take purgatives. An old doctor advised me to flush the bowels with hot water, using a gallon or so of water, with the idea of washing out the whole bowel. I find, after several trials, that I can really pump a gallon or more of hot water into the bowel.

After 5 or 10 minutes it comes away with large quantities of sour, foul-smelling faeces, and I feel better, mind more clear, etc.

The doctor told me that this was the bas is of a system of treatment employed with great success for the relief of chronic ailments by a medical firm some years ago.

The Medical Brief is the best, or among the best, of the journals that come to our table. We so much admire your sincerity and independence." - Dr S. S. Rather, MD, Jacksonville, Texas.

- Doctor, it is an old saying that nothing succeeds like success. If, in your individual experience this method gives good results the end may justify the means.

It is certainly a decided benefit to have offensive and irritating matter removed, and the bowel cleansed. You will need to diet strenuously, avoiding everything that ferments or causes flatulence, and never overtaxing the digestive powers.

Plenty of fresh fruit always eaten on an empty stomach, preferably for break fast, corn bread, a small quantity of roasted or broiled meat, simple puddings.

The juice of tomatoes, fresh green lettuce, spinach, asparagus, are good. - Editor Medical Brief." - in "Medical Brief", July 1904.

The Rectal Tract as a Source of Infection

"In general work there is a decided tendency to overlook one of the most important and fertile sources of disease in the entire body, namely:

1. Large Bowel
2. Rectum
3. Anus

Many physicians do not stop to consider the diseases of the rectum and anus as having any bearing on general diagnosis.

> *"Every person with an unknown cause of digestive disturbance existing over a period of time should be proctoscoped. These patients are entitled to a careful examination for infected crypts, submucous channels, and other local infections." - Dr F. M. Durham, MD in "Southern Medical Journal", May, 1928.*

The average patient is quite reluctant to discuss symptoms relating to the anus or rectum, unless the symptoms are so annoying as to cause a constant reminder of their presence or alarm that there may be a malignancy.

It has often been estimated that 65% of all adults 45 years old or older have some form of rectal trouble.

> *"General symptoms caused by hemorrhoids include a feeling of pressure and fullness in the abdomen, sacral or dorsal pains, and nervous phenomena, such as pressure in the head, headache, vertigo, and nausea. These symptoms depend upon differences in the relative blood pressure in the territories drained by the vena cava and the portal vein,* ***chronic constipation, and neurasthenia."*** *- Dr C. D. Aaron, MD in "Diseases of the Digestive Organs", 3 Ed., 1921.*

"The patient complains of a constant sense of weight and dragging in the rectum and sacral region, and is usually more or less mentally depressed." *- Dr L. J. Hirschman, MD in "Handbook of Diseases of the Rectum", 1920.*

The average female patient, in giving her history will describe severe backaches, a tired-out, exhausted feeling, and then, perhaps, couple with it a recital of some symptoms of menstrual irregularity, etc.

If the physician does ask about the rectum or anus, she will probably reply casually that she has had piles.

The fact that pathology originating in the colon, rectum, or anus may influence that general economy of the body and produce symptoms entirely foreign to the origin of the disease was first forcibly brought to my attention a number of years ago in the case of a child who was thought to have pulmonary tuberculosis.

One day the mother stated that she had considerable trouble with the child's bowels.

A more than usual examination was made, and an old fissure in ano was found.

This was corrected and the child began to improve almost from the first day, taking on weight and losing her restlessness and irritability.

Some children seem almost stoical in regard to pain.

Since then I have observed a man with asthma who would have attacks of asthma without increased inflammation of his piles; but on the other hand, if he had any irritation of the piles, he was sure to have an attack of asthma.

The piles were removed and since then he has been better, though not cured of asthma. Several other cases of chronic bronchitis with apparently some relationship between the rectum and the bronchial tree have been observed.

Dr J. Mark Gottlieb, MD in "The Treatment of Bronchial Asthma", JAMA, Vol. LXXIV, No. 14, at the University and Bellevue Medical Clinics, states that the bacteriology of the

stools as well as of the nasal passages, tonsils, tooth sockets, and bronchial secretion should be ascertained.

He has had cases of colon bacillus anaphylaxis under observation, and cites several cases reported by others.

Women in particular have low backache as a very common subjective symptom.

Most of these women have known that they have piles, or give a history of piles existing at some time, and this history has been ignored. Patients in whom some form of anorectal disease has been found and treated have often remarked on the gradual disappearance of a persistent low backache which had been constantly present.

We have evidence also of a relationship between rectal disease and nervous disorders.

One patient, a woman, had been considered a neurasthenic for years. She had an irritable temper and a moody disposition. It had been seriously debated whether she should be committed to a State institution.

A careful general examination was negative until the rectum was examined; here there were several polyps.

The polyps were removed and now this woman is normal in every way.

> *"A highly neurotic patient complaining of all manner of digestive disturbances, taking purgatives and complaining he never has a feeling of complete emptying of the bowel; such patient's condition is very probably due to hypertrophied anal papillae." - Dr F. M. Durham, MD in "Southern Medical Journal, May, 1928.*

It is just as reasonable to expect a focus of infection in the anorectal region to act as the exciting agent in arthritis.

> *"The coexistence of rectal disease with disturbances of other portions of the intestinal tract can not always be explained on the basis of accident; and rectal disease is so often associated with foci of infection in the mouth, or with gastric or duodenal ulcer,*

cholecystitis, chronic appendicitis, and colitis, that it seems there must be a biological connection. The veins of the rectum and sigmoid correspond to the arterial tree, beginning in the plexus of vessels surrounding the anus and returning through the portal system and liver before entering the general circulation. This may explain the possible transmission of infection and emboli from supperative processes in the anorectal region to these structures, and the etiologic source of some of the pathology found in the upper intestinal tract." - Dr C. J. Drueck, MD in "Influence of Rectal Diseases upon other Portions of the Digestive Tract," International Journal Medicine and Surgery, January 1928.

Dr J. W. Visher, MD in "Relation of Abdominal and Rectal Infections to the Pathogenesis of Diabetes Mellitus", Am. Jour. Med. Sc., No.121, 1926, **has had the experience of 2 cases of pancreatitis and diabetes that improved by surgical treatment of the rectal conditions.**

He is of the opinion that **infection in organs supplied by the portal vein may reach the liver by way of the portal circulation, thus causing hepatitis, which is spread by the lymphatics to the gall bladder and pancreas.**

Dr S. C. Schafer, MD in "Metastatic Brain Abscess Secondary to Peri-Rectal Abscess and Stricture of the Rectum; Report of a case," JAMA, No.88, 1927, reports an abscess of the brain; the post-mortem showing colon bacilli as the infecting organism. **The original focus in this case was a perirectal abscess and stricture of the rectum.**

Disturbance of the sympathetic nervous system is recognized as a factor in causing hyperthyroidism. **These cases of irritable colon or mucous colitis have a profound effect upon the sympathetic nerves.**

S. M. Jordon and Kiefer in "The Irritable Colon", JAMA, 1929, in which 22 cases of irritable colon have been studied, note in particular its frequency of occurrence in **patients complaining of digestive symptoms, and the association of**

changes in tonus and irritability of the colon with symptoms suggestive of intra-abdominal organ lesions, of cardiac disease, and systemic nervous disorders.

> *"These patients are markedly neurasthenic and morbidly self-conscious; in appearance they are usually emaciated, with history generally of considerable loss of weight. There has been obstinate constipation of long duration, with occasional intermittent diarrhea. Palpitation, dizziness, disturbance of the genitourinary system, hysterical symptoms, anemia, headaches, and gastric disturbances of various types are present." - Robert Coleman Kemp in "Disease of the Stomach and Intestines", 1917.*

From these observations of Kiefer and Kemp one may raise the question, Was the patient's hyperthyroidism benefited by the change in intestinal flora, which gave relief from a toxic condition or by relief from disturbance of the nervous system?

Many cases with indefinite pains in the abdomen, with or without constipation or diarrhoea, are due to amebic infection.

During the 1929 meeting of the American College of Physicians, Capt. F. E. Sellers, Medical Corps, United States Navy, demonstrated several cases of psoriasis. In some the skin was entirely clear of lesions, and in others the skin was in process of being cleared. The only treatment used was retention enemas of buttermilk. It is my opinion, that the high retention enema, of a substance rich in acidophilus bacilli, so changed the flora of the bowel as to stop a toxic process affecting the skin.

Conclusion

Foci of infection in the colon or anorectal region may have as profound an effect on distant organs as infection in the upper alimentary or respiratory tracts." - Dr Clifford K. Henri, MD, FACP, Commander. Medical Corps, U. S. Naval Reserve, in U.S. Naval Medical Bulletin, January 1930.

The Clinical Picture of Constipation

"In Constipation, patients every now and then present a clinical picture like this:

An unusually sleepless and uncomfortable night is attended by some degree of headache and heart-bum.

On arising in the morning, dark spots or figures assuming different shapes with each attack, float before the eyes.

These all follow the movements of the eyes, and are seen whether the eyes are open or closed.

There now follow more or less dimness of vision and a frontal headache of progressive severity. The patient feels very uncomfortable and restless, seeking relief by removing his collar and loosening his garments, or craving to do so.

Nausea and vomiting which may be repeated, now appear.

There is yet another type of syndrome in cases of constipation which I have often observed. In this, the patients have the fixed habit of taking laxatives which occasionally act imperfectly or not at all.

The clinical picture in such cases is this:

For days the patient suffers from anorexia, general discomfort, epigastric distress, coated tongue and abdominal fullness.

Later dull headache is experienced and there is a bland, metallic taste from faecal absorption.

At this time, whether due to increased or repeated doses of laxatives, all working at once, or to food acting as laxatives; or whether on account of the system's inability to withstand further absorption of waste products, thus interfering with normal functions, a general revulsion takes place. The patient experiences a sudden and violent cramp and desire for bowel movement, feels flushed and begins to perspire freely and all but loses control over bowel action.

A thoro and rapid evacuation of the bowels ensues, one full movement following another.

This is quickly followed by a feeling of abdominal emptiness, weakness, faintness and dimness of vision.

The skin becomes cold and clammy and the body is drenched in cold perspiration.

The face is of ghastly pallor and the pulse slows down to 60-40 per minute, the temperature becoming subnormal.

Those patients who are subject to syncope sometimes do faint.

The symptoms are those of profound shock.

Such an outcome may be delayed or ameliorated when preceded by attacks of vomiting. After an attack of this kind, the patient usually suffers from epigastric distress, from anorexia and depression or excitation of spirits, lasting for days and even for weeks.

Unlike the bladder, which is irritable and limited as to capacity of content, the rectum, sigmoid and colon are comparatively unlimited as to the amount of faecal accumulation they may contain.

They are capable of lateral stretching, at the expense, however, of paralysing peristalsis; they are capable of extent in length at the expense of the lumen of the intestinal coils thru an area running from the caecum and appendix to the anus.

In extreme cases of constipation, with colon distended, particularly where the sigmoid and rectum are over-distended, this distension may be so great and the nerves of peristaltic stimulation so paralysed that the direction of the movement of the faecal mass may be reversed, in a purely mechanical way by the constant increase in volume of faecal accumulation.

This reverse movement extends from the sigmoid back into the appendix and in extreme cases it is not impossible for the faecal mass to be forced back into the small intestine. Once the faecal mass reaches the hepatic flexure, the reverse peristalsis in the ascending colon will facilitate such a result.

The syndrome of constipation last described above, together with those cases of appendicitis with faecal

concretions (and faecal vomiting) are probably due to the reversed direction of the faecal mass.

A further type of chronic constipation which came to my notice is attended by frequent experience (according to degree of constipation) of mild chills creeping thru the back and scalp; there is a feeling of heaviness thru the latter region as tho some light weight were either resting on it or interposed immediately beneath it.

There is an attendant sensation of fullness and sometimes dull pain over the area corresponding to the dorso-lumbar or lumbo-sacral region. These patients, as a rule, cannot endure cold temperatures, whether indoors or outside.

When out-of-doors they feel chilly and even experience real chills and frequently actually "catch cold", when those people who have good digestive and eliminative power are not at all affected under similar conditions of atmospheric temperature.

In the vast majority of cases, constipation is simply a lack of a natural desire for a movement, or a result of such a condition due to lowered or even destroyed irritability of the rectum.

The patient waits for natural stimulation of the desire for evacuation, which in those cases, seldom comes.

If it should come, it is apt to be very faint, simply a sensation of fullness which the patient too frequently ignores. Very frequently it comes at an inopportune time, and thus constipation may begin.

The highest civilization provides toilets for the home and for public buildings in which the position at stool is similar to that of sitting on a chair altho more relaxed.

Yet in some civilized countries (as well as those less advanced), toilet arrangements are frequently so primitive in construction as to require the squatting position that is used by those uncivilized peoples who use the ground for the purpose of defecation.

In this latter position, the feet rest firmly on the ground, or other solid medium; the thighs are flexed on the abdomen, while the abdomen rests on the thighs.

The body is bent forward, and the buttocks are unsupported by anything.

As it is my opinion that with the vast majority of people more than one daily movement is requisite for good health. These efforts should be repeated daily, until the irritability of the rectum is re-established, and there are at least 2 daily movements of the bowels after experiencing a natural desire for defecation.

The squatting position at stool, with the thighs pressing on the abdominal wall and the trunk resting on the thighs, diminishes intra-abdominal space, particularly in the pelvic region.

This causes increased intra-abdominal pressure and resistance from without, supplemented by the respiratory movements. By reason of these factors the abdominal organs are lifted if prolapsed; they are also straightened out.

By the direct and indirect pressure, and the resulting stimulation of peristalsis, the colonic contents are propelled in the direction of the rectum.

Constipation has always proved a problem in medicine.

It is an accepted fact that drugs do not effect its cure and that at best they are but emergency measures in its relief.

The apathetic condition of the victims of constipation contributes to make life a burden to them. It prevents the application of their full mental power to vocational duties, prevents pleasure in hours of recreation and is productive of low spirits, irritability and a dulling of all the faculties.

External cleanliness of the body appeals to us all for physical, psychologic, hygienic and aesthetic reasons.

But the cleanliness that is next to godliness calls for internal cleanliness in a very, literal way." - Dr L. Drosin, MD, in "Natural or Primitive Posture at Stool in Relation to the Cause and Cure of Constipation and Some of its Clinical Aspects", American Medicine, October 1922.

Chronic Intestinal Toxaemia in Children

"Recognition of the " Intestinal Child"

"The "intestinal child "- as, for lack of a better term, we may call the type produced by chronic intestinal toxaemia of all sorts - is often easily recognizable at sight, hut it is seldom brought to see the doctor for any one very definite symptom.

Occasionally it is brought for irregularity of the bowels, sleeplessness, persistent nocturnal rise of temperature, or bouts of feverish biliousness.

With the onset of the colitis there is not only toxaemia, but pain or discomfort in the hyperaesthetic colon may develop.

Two conditions sometimes associated with toxic constipation require mention: parasites and appendicitis.

This is the type of case in which threadworm infection is common.

Except for local symptoms I do not believe its presence makes any difference.

The so-called symptoms of threadworms are, for the most part, those of toxic constipation and colitis.

Principles of Treatment, Intestinal Lavage

Intestinal wash-outs are very useful in really severe cases, even though they may mean that the child will require more rest than would otherwise be necessary.

They should be given about twice a week.

The fluid used may consist of equal parts of Plombieres water and ordinary water, or of a solution of 2 drachms of salt and 1 drachm of sodium bicarbonate to 500 ml of water; 500 ml to 750 ml should be run into the bowel from a funnel, through a soft rubber catheter, and evacuated after being held in the bowel for 1 or 2 minutes.

Where proper Plombieres treatment is available it is more efficient, but in children the wash-outs given at home are often quite successful.

After 6 or 8 treatments at three-day intervals it is usually possible to lengthen the intervals between the treatments." - Dr Reginald Miller, MD, F.R.C.P., Physician Paddington Green Children's Hospital, Senior Physician to Out-Patients, St. Mary's Hospital, London, in "The British Medical Journal", 10 March 1928.

Constipation the Cause of Many Ills

"A coated tongue is an S.O.S. signal of distress, indicating that toxic substances are destroying the structure and functions of all the organs of the body.

A coated tongue usually is attended by a bad breath and the belching of toxic gases generated in the foul contents of the gastrointestinal apparatus.

The nervous system joins in the S.O.S. call of distress and flashes painful signals that the mortal ship of man may not be lost in the incarnate sea of life.

Chronic systemic intestinal autointoxication is everywhere in evidence

and, if not removed, will dispossess the owner of its armor and instrument.

Chronic toxicosis causes a dry, harsh skin, with the appearance and character of a chamois skin.

The whites of the eyes are discoloured, the teeth decayed, the mucous membranes here and there are catarrhal, while nervousness and insomnia all the while become more and more intolerable.

The functions of the various organs of the body become increasingly impaired and, finally, more or less diseased, so that the spirit of man continues frantically to flash distress calls for the elixir of life to save his mortal body.

An army of doctors, all alert making scientific researches, arc using billions of money freely spent in answer to the countless calls to "Save our ship" on life's ocean.

Have you observed the character of the bilge water that was in the bilge of a boat as it was pumped out If so, you would get a slight hint as to the character of the bilge

substance and gases that can be washed from the stagnant fecal sewer of man.

Bilge water can put the machinery of a boat out of commission, and one need never hope for the elixir of life that will cure the ills of man until the stomach and bowels are kept clean at all times.

Health Dependent on Intestinal Cleanliness

The health of man demands a constant hygienic condition of the stomach and bowels; if this does not exist, various ills, premature age, and death are the result.

Good or bad food mingling with the retained toxalbumen substances, held in the gastrointestinal canal, augments the foul poisons already there and will, through the circulating blood, find lodgment in all tissues of the various organs and, thus, inhibit their normal functions, finally causing disease of one or more of the organs of the frail body.

Many gallons of toxic gases become imprisoned in the intestines and inflate them like so many toy balloons until they crowd out the abdominal walls for several inches, at the same time pushing up the diaphragm, inducing pain

in the region of the heart and of the other organs in the thoracic cavity. The organs in the pelvic cavity are pushed downward, while the kidneys are forced in all directions as the volume of gases increases and seeks more room for expansion.

Naturally, the greatly distended bowels twist and squirm into all conceivable shapes as the forceful, surging volume of gases ebbs and flows, while the organs in the abdominal, pelvic and thoracic cavities report their painful turmoil here and there and the weary, chemical-gassed victim has no physical or mental rest by day or by night.

Symptoms of Intestinal Toxemia

The urge, push, rush and strain of the surging intestinal gases not only cause abdominal pain, but, the pain extends to the back, down the limbs, up to the neck, and, often, to

the head, causing vertigo, insomnia, loss of consciousness, a feeling of constriction around the head and inability to think.

The flood of aches and pains has its high and low tides, its calms and frenzied storms, no organ being at rest, while the poor, weary mortal tries to perform the duties incumbent upon him.

One wish is ever uppermost in his mind, namely, that something only would happen that would end it all. Some do end it in an act of desperation.

Others, more patient, wait and struggle on between despair and hope to find a cure.

The Burgeons who received the S.O.S. call, answered with alacrity, removing adenoids, nasal spurs, teeth, appendix, ovaries, adhesions, bands, kinks, loops, prolapsed organs; doing, also, exploratory surgical operations for the purpose of obtaining an accurate diagnosis, but, failing invariably.

The medicine man nobly answered the call, with excellent remedies in the form of pills, tablets, powders and liquids, to be taken before or "after each meal and at bedtime, with a diet-list with headlines as follows:

"May take—morning, noon and night.—Must not take." Happily, here, the patients escaped with all their organs intact, due to better diagnostic ability on the part of the internists.

Neurasthenics Are Victims of Toxicosis

Then it came to pass that these applicants for the help of the members of the healing art were called neurasthenics, a good name for an indefinite disease that was not, or could not be, diagnosed, and for which mineral oil and abdominal support were helpful.

However, as long as there is life, the S.O.S. - signals keep on flashing for help, for, there is bilge substance in the hull of their intestinal ship; and this chronic symptom is called chronic constipation; while, if the imprisoned faeces and gases are discharged without aid, the symptom is called diarrhoea.

I am thoroughly convinced that all mankind are more or less constantly, or chronically, constipated, which accounts for the self -poisoned, toxic condition of the human race from infancy to premature old age and death.

Constipation the Root of Most Ills

Nine-tenths of the diseases that afflict man can be traced to habitual self-poisoning.

More than ninety percent of tuberculosis cases might be prevented by keeping the gastrointestinal canal clean or free from unduly retained excrement.

Tuberculosis, and many other incurable diseases, should be considered as symptoms of chronic autointoxication and autotoxemia.

Chronic constipation, indigestion, asitia, aposia, toxicosis, insomnia, denutrition and toxic anemia are the stepping stones to the occurrence of what we now consider as incurable diseases of the various organs of the body.

Tuberculosis, cancer, and other maladies, can be prevented, but, not cured, owing to the chronic toxic condition of the body.

Premature old age, as we observe it today, is caused by the saturation of all the fluids of the body with toxic matter —in other words, an embalming with dirt until the body of living man very much resembles a cadaver.

I have tried to make a word-picture of a class of sufferers, called neurasthenics, that I have attracted to me for the past 40 years in increasing numbers, with various symptoms and of which I have briefly enumerated a few that I have found were caused by chronic constipation.

The Baneful Proctitis

Long-continued clinical observation has convinced me that proctitis is set up, as a rule, by the wearing of a toxic diaper in infancy, the infection gradually invading the sigmoid flexure, and, by the formation of submucous, subtegumentary and supermuscular fistulas,

periproctocolitis is set up early in the history of this awful disease.

In a normal state of the upper portions of the rectum, the caliber, or bore, of the bowels is smaller than the middle and lower end of the rectum.

Also, at the juncture of the rectum with the sigmoid flexure, there are circular muscular fibers called the sphincter of O'Beirne, or the third sphincter muscle, and, when invaded by the disease, the canal becomes quite closed, with induration and epithelial ulceration of the anterior wall, extending to either side of the upper third of the rectum.

The tendency of long-inflamed and indurated tissue is, to become cicatricial, destroying the elasticity, or expansibility of the bowel, resulting in occlusion, or stricture, of the diseased canal; therefore, the constant retention of faeces and gases above the diseased region of the faecal sewer, which accounts for the universal autointoxication of man from his intestinal sewer.

In chronic proctocolitis, periproctocolitis and extensive mucous fistulas, the tissues are swollen, indurated, often cicatricial, ulcerated and frail, discharging serous, fibrinous or albuminous toxic exudates, which are imprisoned in the tissues and are constantly absorbed into the system, resulting in chronic autotoxemia.

The fact that man is doubly poisoned from infancy, readily accounts for the sickly, puny, anemic and diseased appearance of so many members of the human race and demonstrates the failure of the members of the healing art to do their whole duty to a generation of beings chemically poisoned from infancy to premature death.

Thorough systemic hygiene will prevent about all the ills that man has brought upon himself through lack of knowledge and foresight.

In the treatment of chronic proctocolitis and its numerous symptoms, from the dome of his head to the soles of his feet, no deleterious medicines are given in the process of a cure, as **the sufferers are already permeated with drugs and numerous toxic poisons beyond the ken of man.**

The Author's Remedy

The object to be obtained, in the treatment of chronically retained toxic faeces and gases above the diseased strictured region of the bowel (which we find most severe in the region of the third sphincter muscle at the junction of the rectum with the sigmoid flexture) is, at once to bring about a hygienic condition of the gastrointestinal canal and restore the function of all the eliminative organs of the body, while curing the local disease that caused so many and varied grave symptoms, permitting the secondary, or incidental, occurrence of disease to become manifested and inexcusably so.

For about forty years, I have been aware that chronic proctocolitis means, toxic foulness of all the digestive and eliminative organs, as well as of the whole system. Now, just ordinary everyday gumption would suggest the queen of hygienic remedies, namely, aqua fontana, properly used, as the supreme remedy for removing the cause of the many symptoms. Over 30 years ago, I made plain the reasons for the use of the enema 2 or 3 times a day.

Professor Gatenaria, of Pavia, Italy, invented an enema apparatus about 1490, and its use became the fashion of the day; but, without the knowledge that proctocolitis existed, the use of the enema was, like that of a host of "remedies", a mere makeshift effort to overcome symptoms of a disease that had not been diagnosed. Hence, the nihilism prevailing among so many physicians at the present time.

The enema water, at a temperature of 90 to 110 degrees, properly injected into the large intestine, is by far the best means for dislodging and flushing away ancient faeces and gases and for cleansing the mucous membrane of the gut.

It dilates the diseased, contracted gut invaded by chronic inflammation, induration, cicatricial tissue and ulceration, permitting the imprisoned faeces and gases to escape, with the least amount of irritation, through the diseased canals.

This hygienic measure should be applied 2 or 3 times a day, with a greater or less amount of water, as the case may demand.

There are some dozen objections to the enema, but, these I have answered in my book entitled "Intestinal Irrigation".

There is another use I make of water in treating chronic proctocolitis, and, so far, I have heard of no objection to the use of the wouderful remedy; still, there will be when novices attempt its use.

I devised a perfect instrument for the use of water at a temperature of 125 to 150 degrees, which is held in the diseased bowels for from 5 to 10 minutes, then expelled, but, at once, hot water is injected again.

This is continued for an hour or more, without removing the anorectal point through which the water enters the bowels and returns. The treatment is accomplished while sitting on a toilet-seat. It may be used twice a day, or only in the evening if the patient is employed during the day. In the water so used, there may be incorporated oil, sodium chloride (¼ to ½ pound in 2 gallons of water) or any other remedies of a depurant nature that one may wish to employ.

Hot water at a temperature of 124 to 134 degrees is antiphlogistic, antacid, antiflatulent, antispasmodic, diuretic, diaphoretic and anodyne, producing a restful state of body, likewise sleep. It softens cicatricial and indurated tissue, equalizes the circulation of the blood, stimulates secretion and excretion.

It is astonishing how much mucus, shreds, casts and other impurities the hot water causes to be discharged during and after the hour's treatment. Water at a temperature of 140 to 150 degrees F., or more, will cause wakefulness for about 2 hours if taken before going to bed; but, there will be a delightful feeling following its use.

The detergent effect, on the system, of hot water at the temperature named is wonderful.

It evidently releases the impurities from the system as well as those generated by the local disease, and, to a great extent, prevents the detritus from entering the system while the cure is progressing."- Dr Alcinous B. Jamison, MD, New York City, in "American Journal of Clinical Medicine", August, 1921.

Antibacterial Drugs

"Not all Antibacterial Drugs reach the lower gut or affect the microbes of the intestines.

Reviews have appeared which describe the activity of antimicrobial agents against gut anaerobes (Finegold, 1970; Hamilton-Miller, 1975).

It is obvious that medical treatment of microbial infections of the gastrointestinal tract with antimicrobial compounds will help to restore the normal function of the gut in digestion and absorption.

Malabsorption related to bacterial overgrowth in the small intestine (Neale et al., 1972; Drasar and Hill, 1974) or to intestinal infection with higher parasites (Layrisse and Vargas, 1975) is based on a competition for vitamins and other nutrients between parasite and host.

The value of antimicrobial therapy in these and other situations (diverticulitis, intestinal strangulation) is well established.

In developing countries many children die as a consequence of malnutrition, and malabsorption of nutrients as a result of enteritis is an important factor in these cases.

The question of the potential of feeding low doses of antibiotics to children in these countries where malnutrition is a problem has been asked by Rosenberg et al. (1974).

The clinical implications in man of the presence of drug residues in foods are normally of minor importance (Hewitt, 1975).

Changes in the flora brought about by antibiotics may not only change the production of VFA, the metabolism of bile acids in the bowel, but also the activation or degradation and inactivation of drugs, including antibiotics.

It has often been expected that suppression of the bacterial flora by antimicrobial drugs could interfere with the production of vitamin K in the large intestines of man, but even in cases of hypoprothrombinemia related to the usage of antibiotics, a direct effect of the antibiotic on

normal regulatory genes in the hepatic cell may be the key factor (Finegold, 1970).

There is evidence that changes in the intestinal flora by dietary administration of antibiotics may lead to a "sparing effect" on the vitamin requirements." - in "Nutritional Impact of Intestinal Drug-Microbe Interactions", Nutrition and Drug Interrelations, 1978.

Headaches

"The attempts to establish a working hypothesis, to account for all the varieties of hypertension, leads us face to face with the toxic theory. Arterial hypertension is best exemplified as it occurs in a group of chronic diseases having as their common essential characteristic, toxemia. In all probability the materies morbi consists of certain biochemical products present in the circulating blood. This is apparent in scarlatinal nephritis in which the tension rises a few hours after the appearance of albumin in the urine, entirely too early for the rise to be explained by the formation of arterial fibrosis. The high tension of uremia is another instance in point. For laboratory proofs we have the well-known fact that the pressor principle of adrenal and pituitaiy glands and also certain drugs (ergot, nicotine, digitalis) will raise blood pressure." - Dr A. R. Elliott, MD in "Arterial Hypertension", Am. Jour. Med. Sc., May, 1910.

"The source of these toxins — eliminating the nephritic element — is always very difficult and in many cases impossible to ascertain. Clinical experience shows us that frequently the intestinal tract is at fault either through frank constipation or slow and deficient elimination — "delayed traffic."

Long periods of putrefaction of nitrogenous foods give rise to toxic substances which are absorbed and exert a pressor effect on the blood vessels.

As an instance of this let me cite the following case:

Woman of 43. Never any serious disease. For the past 10 years has been subject to frequent severe attacks of headache, and to profuse nosebleeds, which relieve the headaches. The appetite has been good and the bowels have always moved daily. During these 10 years she has been

under treatment by several good men for "neurasthenia."

Physical examination shows the heart enlarged to the right and to the left. A slight systolic murmur at the aortic area. The aortic second sound accentuated. The arteries not palpably sclerotic. The urine shows nothing abnormal, but the blood pressure was 230 when I saw her in one of her attacks of headache.

Now, though there had been a daily bowel movement, we investigated the conditions there and found that irrigation of the colon brought forth a large amount of mucus and evidence of great putrefaction, and from a single dose of medicine we obtained eight large movements, proving the presence of stasis — or "delayed traffic."

By daily Irrigations of the bowel, laxatives and a diet of vegetables and fruits, the headaches were entirely eliminated, the pressure fell to 170 and the heart has returned practically to normal size. From an almost intolerable condition the patient is now in apparently perfect health." - Dr James Marsh Jackson, MD in "Remarks on High Blood Pressure and Arteriosclerosis", Boston Medical and Surgical Journal, 2 November 1911.

The Treatment of Arteriosclerosis and High Tension

"Dr A. P. Luff, MD maintained that the most important factor in treatment was to diminish the production of toxins in the gastrointestinal tract and their absorption therefrom, which was affected by insuring a free action of the bowels, and a reduced consumption of meat and alcohol.

One of the most interesting points in connection with arteriosclerosis, and high tension and their treatment is the part played by autointoxication. If this process can be prevented or controlled benefit will naturally follow.

The regulation of the diet is one of the indications to be studied, and most physicians are of the opinion that red

meats should be avoided, and that alcohol, tobacco, and a large amount of tea should be forbidden.

Equally important is the necessity of clearing the bowels of all mucus and food matters. Herein probably lies the advantage of Hydrotherapeutic measures.

The general conclusion is that the management of a patient's daily life and Hydrotherapeutic measures suited to the particular case are the chief means by which arteriosclerosis may be treated and excessive blood tension lowered." - in Lancet, 24 May 1913.

The Treatment of Blood Pressure

"If Intestinal Toxemia is suspected or proved, Colonic Irrigations 2 or 3 times a week are of value, and there are some who have claimed good results from the use of the Bulgarian lactic acid bacillus." - Dr George Morris Piersol, MD, Associate in Medicine University of Pennsylvania, in "The Management of High Blood-Pressure", Therapeutic Gazette, 1913.

Chapter 2

Colonic Therapy in Mental Disease

"Jordan (Chronic Intestinal Stasis, 1923), co-worker of Sir Arbuthnot Lane, has made the statement that, "intestinal stagnation gives rise to a definite train of clinical disturbances, while toxemia, of the circulation blood by the production of bacterial toxins, effects every tissue and organ of the body.

Many of the symptoms and signs of stasis are due to derangement of the ductless glands and other organs.

So interwoven are the effects that it is impossible to devise a complete or biological classification of the symptoms symptoms and physical signs of chronic intestinal stasis.

Derangement due to the direct effect of intestinal stagnation are:

Constipation
Flatulence
Distension
Abdominal Tenderness
Anorexia

There may be nausea, foul breath and in advanced stages the bowel wall may be effected by the general toxemia, mucous membranes become catarrhal and the constipation gives place to a form of diarrhoea in which mucous is voided with small amounts of fecal material.

Some of the symptoms of early stasis may be said to be due to uncomplicated toxemia, though no one can say when derangement of the ductless glands begins to enter into the picture.

The early symptoms include:

1. Headache
2. Backache
3. Aching Joints
4. Neuralgia
5. Neuritis

Attacks of asthma have even occurred in some cases.

All the early symptoms enumerated above are intermittent at first, but become more persistent as the disease progresses and as it gains a firmer hold on the victims, it may give rise to a train of mental disturbances, covering the whole range of intensity from lassitude and sexual inertia to delusional insanity.

The catalogue includes:

1. Depression
2. Lack of Energy
3. Lack of Concentration
4. Loss of Memory
5. Sleeplessness

More serious mental disturbances include:

1. Melancholies
2. Epiliptoform States

Such conditions as:

1. Pyhorrea
2. Arthritis Joint Conditions
3. Dental Abscesses
4. Septic Tonsils

Are, according to this authority, due, at least in some instances, to the infection and Toxemia of Intestinal Stasis.

During the past year some 70 patients have been examined.

These were composed of:

1. Dementia Praecox
2. Manic Depressive
3. Psychoneurotic Types

The degree of stasis has been determined by the administration of barium meal and the subsequent A-ray or flouroscopic examination at intervals of at least 24 hours.

According to most authorities the normal time required for the elimination of a barium meal is between 36 to 48 hours.

This at least may be considered as a conservative estimate and when more than 48 hours are required, it may safely be assumed that some degree of stasis exists.

The average rate at which the barium meal reaches and passes through the colon is approximately as follows:

The caecum is reached in 4 hours, the hepatic flexure at 6 hours, the splenic flexure nine hours, beginning of the iliac colon at eleven hours and pelvic colon at 12 hours.

At 24 hours the entire colon should be filled and in from 36 to 48 hours it should be completely emptied. In the series of 70 cases which we have examined, we have found that in approximately 80%, more than 48 hours were required before elimination was complete.

It has not been uncommon to find that several days would elapse before the barium would reach the sigmoid.

At the time of the writing of this article an X-ray examination of a female manic depressive of the depressed type, has just been completed.

At 24 hours the barium had reached the hepatic flexure, at 72 hours it had reached the splenic flexure, at 168 hours it had reached the sigmoid.

About 240 hours were required before the entire meal had passed through the colon.

In the 70 patients that have been examined, 37 were dementia praecox, 21 were manic depressive and 12 were psychoneurotics.

The results were as follows:

In 37 Dementia Praecox;

86% required more than 48 hrs.
56% required more than 100 hrs.
27% required more than 150 hrs.
16% required more than 200 hrs.
Average Time was 113 hrs.
Maximum Time was 360 hrs.

In 21 Manic Depressives;

76% required more than 48 hrs.
51% required more than 100 hrs.
47% required more than 150 hrs.
33% required more than 200 hrs.
Average Time was 154 hrs.
Maximum Time was 408 hrs.

In 12 Psychoneurotics;

67% required more than 48 hrs.
33% required more than 100 hrs.
1% required more than 150 hrs.
Average Time was 80 hrs.
Maximum Time was 166 hrs.

In the 21 manic depressives, 16 were of the depressed type and 5 were of the manic type.

None of the 5 maniacal type showed any evidence of stasis.

The treatment of these patients has been limited very largely to **Colonic Irrigations and Sinusoidal Galvanic Current Treatments.**

These have been given from 2 to 3 times a week.

In addition to this Ultra Violet Radiation and Hydrotherapy has been used when indicated.

In the Colonic Irrigation work, the colon tube has not been used.

We have been able to demonstrate that the entire colon may be washed out by using only a short enema nozzle.

At each treatment the patient is, as a rule, given from 4 to 6 Irrigations, or as many as may be necessary for the return flow to become clear of fecal matter.

Usually from 25 to 50 oz. of water are used at each irrigation.

During the past year, 30 patients have received treatment over a period of several months.

Of these, 18 were dementia praecox, 7 manic depressives and 5 psychoneurotics.

The results to treatment are as follows:

In the Dementia Praecox Group;

17% Recovered.
50% Improved.
40% Have been released from the hospital on trial visit.

In the Manic Depressive Group;

70% Recovered.
15% Improved.
85% Have been released from the hospital on trial visit.

In the Psychoneurotic Group;

80% Recovered.
80% Have been released from the hospital on trial visit.

In the total of 30 cases treated;

40% Recovered.
33% Improved.
57% Have been released from the hospital on trial visit.

An extremely depressed and agitated male manic, 48 years of age, with a stasis of 10 days duration, showed a decided, well marked improvement immediately following his first Irrigation and completely recovered in about 1 week.

He was released from the hospital, but returned at his own request for treatment over a period of several months.

He has remained well for more than 8 months during which time he has not been treated.

Another depressed manic, with a 7 day stasis, recovered in about 2 weeks. He was released from the hospital, but some 2 months later had a second attack which necessitated his return. He again recovered in about two weeks time and following the second release he voluntarily returned to the hospital at weekly intervals, a distance of 70 miles, for treatment.

He has remained well for more than 6 months.

A female catatonic dementia praecox of the most pronounced type, a woman 33 years of age, the mother of 3 small children made an absolute recovery in about 4 months and for the past 6 months she has had complete charge and supervision of her home and family.

During this time she has not received treatment.

A male dementia praecox, formerly a college student, with a psychosis of 7 years duration, was found to have a stasis of about 200 hours. He had been treated at various hospitals and sanitariums in several states. After 6 months he was released as improved. We have his father's statement that at the present time his condition is definitely better than it has been at any time during he past 5 years.

Another male praecox, 25 years of age, with a 7 day stasis, whose condition demanded that he be kept under close confinement and supervision, has shown a definite

improvement and is now working daily on the farm.

His prognosis, at the present time, appears very favourable.

A male psychoneurotic with an 80 hour stasis, who had been treated at home and in sanitariums for about a year, recovered in 3 months time and has remained well for more than 7 months." - Dr N.W. Kaiser, MD, in "The Ohio State Medical Journal", June 1930.

"When we started colonic therapy at the Toledo State Hospital a little more than 1 year ago, we tried to approach the problem in a scientific way.

I advised the medical staff to not prescribe colonic therapy except in definite cases of intestinal stasis diagnosed by means of the barium meal and X-ray.

This policy has been carefully carried out in every instance.

Every one of the 70 cases reported by Dr Kaiser was first presented at staff meeting and a psychiatric diagnosis was made and recorded.

Every case released on trial visit was again brought before the medical staff at the time the visit was granted and the mental condition of the patient recorded.

We have tried to be conservative in our claims.

We all know that constipation can affect the personality.

Is it not logical to assume a possible relationship between the autonomic nervous system and some of the functional psychoses through the sympathetic and parasympathetic divisions which innervate the gastrointestinal tract?

I believe this offers a most interesting and important field for research.

Dr George W. Henry, Senior Physician and Director of Laboratories, Bloomingdale Hospital, New York, in "American Journal of Psychiatry", March, 1929, refers to an article by Dr Henry entitled "Gastro Intestinal Motor Function in Schizophrenia", in the American Journal of Psychiatry, July 1927.

In discussing focal infection in teeth he states:

> *"Further evidence of this possibility is found in roentgenographic observation of gastro-intestinal motor functions in schizophrenia, in which retention of barium in the pelvic colon for longer than 5 days, occurred in over 70% of acute cases. The frequently observed toxic feature in the clinical manifestations of acute schizophrenia, therefore, have abundant source in colonic stasis." - Dr O. O. Fordyce, MD, in "The Ohio State Medical Journal", June 1930.*

Dementia praecox being such a seemingly hopeless proposition, it seemed to me that one was warranted in taking any measures to overcome the difficulty.

As one of the most prominent symptoms in all of these cases was toxaemia, we felt justified in progressing along some lines that would have a tendency to unload the case.

It seemed plausible and also feasible, according to historical experience and to observation, to unload the toxic state of these cases coming from the bowel and so we started a course of enemas to handle the situation.

Our results were rather startling; so much so that after 3 years we were on the edge of reporting this method of treating the cases as a definite curative measure.

During the intervening years we have returned to the enema procedure on 2 or 3 occasions, running a considerable group of cases through on it and controlling them with groups not similarily treated.

At the same time we set about a rather rigid investigation of the laboratory findings in these cases.

After extensive investigation over a period of some eighteen years we were able to prove to ourselves that indican was consistently present in the urines of dementia praecox cases when they were disturbed. In fact it is the only finding that consistently held up through the entire group of cases.

However, actual records kept have led us to believe that while enemas do a remarkable amount of good, it is

questionable if they bring any more permanent results than other measures do.

Mental cases are all creatures of overload. It is a case of the last straw breaking the camel's back. In many instances if this last straw, which in the dementia praecox case seems to be the intestinal toxaemia, is removed, the back straightens up and carries the remaining load satisfactorily.

Many mental cases being relieved of the toxic substances they are absorbing from the intestine will clear in their psychical behaviour and seem to be normal and well.

Toxaemia recurring they will go back into their troubled state.

Because of this situation, work such as Dr Kaiser has brought out here is especially commendable as it shows how the taking off of one of the overloads that the patient is suffering from, will in many instances bring them back to a normal condition again.

In 1912 we had brought to us a girl suffering from dementia praecox.

At that time we were assiduously giving high enemas.

She was placed on this line of treatment and after a number of months made what seemed to be a good recovery.

Later she entered one of the large training schools for nurses, graduated, and became a charge nurse in that institution, and when we called upon the head of the nursing organization and asked her regarding this girl, she stated that she was an exceptionally good worker and very satisfactory and was holding a rather exacting position.

We could name many other cases of this same type that are now out in the world, going along and getting along splendidly, some of them even after 20 and 24 years have elapsed since their original trouble." - Dr Carl W. Sawyer, MD, in "The Ohio State Medical Journal", June 1930.

The Importance of Cellular Vitality

"Recognizing the importance of Cellular Vitality, the trend of modem research along preventive lines is directed not only against the causative germ, when one is known or suspected, **but against the products of such organisms, the toxins or poisons which are liberated in the tissues as a result of the activity of these.**

Prevention by elimination is directed not only against the bacterial toxins, but against the tissue toxins as well.

The work of Carrel, of the Rockefeller Institute, **has shown that tissues may continue to live almost indefinitely, provided the toxins of the tissues themselves, the products of the activity of the individual cells, be removed.**

It would seem, therefore, that if a spring of eternal youth or a fountain of everlasting physical life, is even in a measure to be discovered, it must provide for the purification of the individual cells, and thus of the body as a whole. For it is essential to health, and even to life, that we get rid not only of the poisons which may be absorbed from without, but the poisons produced in the very living and being of the cells which constitute our bodies.

In other words, we must help nature, wherever she needs help, in the elimination of the products of metabolic activity.

There is, as I have suggested, abundant evidence to prove that **faulty elimination of the products of physiological activity is a fundamental factor in the production of such states of being as facilitate the taking on of disease, if, indeed, it is not itself the essential cause of certain diseases."** - Dr William Seaman Bainbridge, AM, ScD, MD, CM, New York City, in "Some Fundamental Causes of Disease", Texas State Journal of Medicine, April 1927.

Sodium

"Fact 1. Sodium is a constituent of all the tissues, but mainly of the blood.

Fact 2. Sodium is the purveyor of the hydrochloric acid for the peptic glands, and of ptyalin for the salivary glands.

Fact 3. Sodium is concerned in the normal secretions of the liver and other glands, shown by repeated small doses having a salutary effect when the secretions are scant in quantity or quality.

Fact 4. Sodium controls the acidity of the blood, eliminating deleterious acids.

Fact 5. Solutions of the neutral soda salts have a salutary effect on the skin, curative in many skin diseases.

Fact 6. The effect of sodium is stimulating, as shown by increased glandular secretions.

Fact 7. The soda salts have a certain control over the multiplication of fungi and parasites of the alimentary canal, shown by clinical results.

Fact 8. The soda salts, in assimilable doses, are congenial, having a salutary effect on the eliminating glands.

Fact 9. The sodium salts are antiseptic.

Fact 10. Sodium chloride reaches the blood without change by digestion, and hence may be injected directly into the blood in normal solution (1 teaspoonful of common table salt to 500ml of boiling water, cooled to blood temperature).

The injections have a reviving and stimulating effect in low anaemic conditions.

Loss of blood by hemorrhage may be replaced by normal solution of salt.

The system will supply itself rapidly from Colonic Injections of normal salt solution.

Next to the therapeutic results obtained from magnesium, in brilliancy, are the results from sodium. The wonderful results obtained from Epsom salts are partly from the sodium sulphate it contains (10% to 40%), which results are not all obtainable from either C. P. salts alone.

There are so many facts concerning sodium that reasoning on them is neither necessary nor interesting, but we cannot help looking over them and feeling a deep gratitude that such a drug has been vouchsafed to man.

Notice fact 10, that vitalizing and stimulating effect has many a time restored the poor sufferer fast sinking into coma." - Dr William Harvey Burgess, in "Chronic Disease; the Natural Method of Diagnosis and Successful", 1907.

Chapter 3

The Value of Colonic Irrigations

"The use of injections, and the warm bath, are the best means of restoring the secretions of the digestive organs. An old Scotch physician, for whom I had a great respect, and whom I frequently met professionally in the city, used to say, as we were entering the patient's room together: "Weel, Mister Cooper, we ha' only twa things to keep in meend, and they'll searve us for here and herea'ter; one is always to have the fear of the Laird before our ees, that 'ill do for hered'ter; and the t'other is to keep your booels open, and that will do for here." - Sir Astley Cooper, FRS, Surgeon to the King in "The Lectures on the Principles and Practice of Surgery", 1826.

"Colonic Irrigation acts like a charm in many cases in which obstinate constipation, accompanied or followed frequently by intestinal stasis, is present. When the waste products remain in the bowel for a considerable time, they are apt in some instances or rather their toxins are prone to gain entrance to the blood-stream and it is in such cases that Colonic Irrigation is followed often by beneficial results." - in "International Journal of Medicine and Surgery and Surgical Journal", 1930.

Features of the treatment

"Features of the treatment are:

1. Ease and cleanliness of application.
2. Absence of undue stretching of the colon and of pain.
3. Objection-free irrigating fluid.
4. Gentle alternate filling and emptying of the successive haustra of the colon, often repeated.
5. Solution and ablation of mucus and of putrefying and fermenting material.
6. Stimulation and exercise of the atonic colon wall.
7. Relief of partial obstruction caused by adhesions; relief of spasticity in any part of the colon.
8. Freedom from fatigue or weakness for the patient.
9. Thorough cleansing and freshening of the colon without irritation.

The irrigation consumes 30 to 45 minutes.
This method is not intended for the relief of impaction.
The lower colon is previously emptied in the natural way or by the aid of the ordinary enema."

Intestinal toxaemia is assigned as the cause of a multitude of ailments. We usually mean colon toxaemia. In a symposium before the Royal Society of Medicine in London upon the subject of Alimentary Toxaemia, 36 toxic substances from the colon were noted, beginning with indol, skatol, and phenol and continuing through botulin, tryptophane and indolethylamine.

Dr. William Hunter remarked that the fact that colon stasis might exist in some individuals as an almost permanent condition without apparently causing ill-health is due solely to the power and protective action of the liver and is only evidence that some individuals possess the caecum and colon of an ox with the liver of a pig, capable of doing any amount of disintoxication. There exist only too many chronically engorged and infected colons which harbour clinging mucus swarming with bacteria.

Prof. Kast tells his classes that such a colon presents an infective focus of the first magnitude; a thickened membrane infected from the villi and the mouths of the glands clear down to the muscularis.

There has never been found a satisfactory intestinal antiseptic that can be taken by mouth. Frederick M. Allen is emphatic in his recent statement that Bacillus Acidophilus and Bacillus Bulgarious do not correct auto-intoxication or indican excretion.

Bacterial toxins and putrefactive compounds in excess in the colon demand that the physician "clean out, clean up and keep clean" this viscus.

Infection and congestion of the colon point to mechanical drainage.

These indications and others mentioned are met only by this method of thorough colon lavage." - Dr W. W. Blackman, MD in "Better Colon Lavage", "The Journal of the Medical Association of Georgia", devoted to the welfare of the medical profession of Georgia, published monthly under direction of the Council, Vol.XIV, November, 1925.

The Value of Colonic Irrigations in Counteracting Auto-Intoxication of Intestinal Origin

Clinic of Dr R. G. Snyder at the Hospital for the Ruptured and Crippled

"Many members of the medical profession have for years deprecated or belittled the value of colonic irrigations in autointoxication of intestinal origin. In recent years however, a number of clinicians have written favourably of this method. (1), (2), (3)

Others, become convinced of the value of this method of therapy, have been using this form of treatment constantly in their private practice.

The few publications which have appeared to date

criticizing colonic irrigations as a method of therapy have emphasized that it may weaken the patient, that it may be habit forming, that it may irritate the mucous membrane of the colon, that it may cause permanent dilatation of the colon or that it may even result in perforation. (4), (5), (6), (7)

To date, however, no one has published proof based on human material to substantiate these arguments.

The writer's clinical impression, based on his personal, rather extensive experience with colonic irrigations as a method of therapy for the past fifteen years, is that he has never observed the deleterious clinical sequels or the complications described by the critics of colonic irrigations.

On the contrary, colonic irrigations, when clinically indicated, constitute an extremely valuable form of therapy.

The writer has observed numerous cases suffering from such conditions as chronic arthritis, hypertension, coronary disease, chronic abdominal distention, constipation and colitis, in which the element of constipation, auto-intoxication and possible colon infection seemed to play a prominent part, which responded very satisfactorily to colonic irrigations after failure to improve following the usual forms of medical treatment.

The diagnosis of auto-intoxication of intestinal origin cannot be established by such laboratory aids as a study of the urine, of the faecal content and of the blood.

Comparatively little is known of the absorption of toxic or infectious materials from the colon and still less is known to-date, concerning the detoxifying action of the liver.

The clinician is forced, therefore, to rely largely upon clinical impressions gained from study of the patient's symptoms, appearance and physical findings, and to some extent from the roentgenologic studies of the patient's colon 8 and terminal loops of the small intestine.

The symptoms of auto-intoxication; which are probably due largely to absorption of intestinal decomposition products, intestinal bacteria or toxins produced by the intestinal bacteria in the lumen or walls of the colon are:

1. Drowsiness
2. Dizziness
3. Mental depression
4. Inability to concentrate
5. Headaches

Sometimes these patients complain of:

1. Low grade Fever
2. Abdominal Distention
3. Eructations
4. Flatulence
5. Nausea
6. Vomiting

Patients who suffer from abdominal distention also often complain of:

1. General Weakness
2. Precordial Pains

On examination of the patient, one usually notes a peculiar toxic appearance, a coated tongue, sometimes foul breath and frequently abdominal distress.

On abdominal palpation, it may be possible to demonstrate a hard, tender descending colon and sigmoid.

On the right side one may palpate a dilated, slightly tender caecum filled with semi fluid material or faecal masses. A somewhat enlarged liver is usually palpable.

The roentgenologic substantiation of the clinical diagnosis of auto-intoxication of intestinal origin consists of the demonstration of ileal dilatation and retention of the barium meal for 9 or more hours and of the demonstration of the excessive faecal content throughout the colon by the barium enema method.

These findings are usually observed in patients with unusually redundant, dilated and atonic colons. These patients usually show marked ptosis of the transverse colon and frequently ptosis of the flexures as well.

The caecum is usually very low in the pelvis and the various segments of the colon seem to be crowded low in the pelvis and abdomen.

Occasionally and usually unexpectedly, one finds diverticula in the sigmoid in association with the dilatations of the colon proximal to the site of the diverticula and faecal retention in these dilated segments of the bowel.

The size and volume of the colon are very frequently entirely out of proportion to the stature of the patient. In comparatively underweight, small and short individuals, one frequently finds by roentgenologic examination, extreme tortuosity and dilatation of the bowel loops.

Whereas the average colon can be completely filled with 1 or probably 2 quarts of barium suspension, in these individuals 3, 4 and even 6 quarts may be required for complete filling of the bowel.

The colon in these cases seems to occupy the major portion of the abdominal cavity and usually shows marked stasis of the bowel content.

The usually accepted methods of treating auto-intoxication such as diet, rest, exercise, bowel massage, catharsis, the use of mineral oils or of bulk-producing drugs and of increased vitamin B intake are not always entirely successful in the elimination of the above mentioned symptom complex.

In this group of cases the writer has often obtained satisfactory results, when to the former methods of treatment, he has added Colonic Irrigations.

In every discussion of the value of colonic irrigations the argument is usually set forth that the ordinary water enema can be self-administered, and that it is fully as effective as the colonic irrigation.

Practical experience however, does not substantiate this viewpoint.

Many patients are unwilling and unable to carry out this procedure regularly and over any extended period of time.

Some cannot retain the enema and obtain only very slight beneficial results from it.

In the experience of the writer colonic irrigations

administered by a well trained technician or nurse have proved to be far more effective.

The methods in common use are from 7.5 to 23 litres of ordinary warm tap water is used.

Ordinarily the flow of water is maintained until the return flow from the bowel is clean.

The intervals between irrigations are short at first, and are gradually lengthened as the patient's condition improves and the symptoms of auto-intoxication subside.

The details of these 2 forms of therapy have been thoroughly described by Bastedo (1) and Wiltsie (2).

The writer to date he has not observed, in any of his cases in the Arthritis Clinic at the Hospital for the Ruptured and Crippled of New York City or in any of his private patients, any of the deleterious effects discussed by Soper (4), Lichty (5), Friedenwald and Feldman (6) and Krusen (7).

Images of X-rays of a colon before and after 200 colonic irrigations over a period of 5 years, show no dilation of the colon, in fact what it can be observed is that the colon shrink to a more natural and healthy size.

Other X-rays show apparent complete obstruction of colon due to diverticulitis of the sigmoid with spasm. Treated with colonic irrigations. Dec., 1930.

Clinical cure of bowel obstruction due to diverticulitis by use of colonic irrigations, Feb., 1934. Patient still well up to 1938.

A series of 30 private cases and of 200 clinic cases were examined proctoscopically by Dr. Vincent Hurley, the proctologist in the Hospital for the Ruptured and Crippled, before and after one or more series of colonic irrigations.

A single series in this study constituted 10 to 20 irrigations at 2 or 3 day intervals.

In no instance was there any evidence of mucous membrane irritation or of damage to the bowel mucosa.

Lichty (4) has stated that colonic irrigations irritate the mucous membrane of the colon but he has not offered substantiating clinical evidence on this point.

Friedenwald and Feldman (6) found evidence of mucous

membrane irritation in the dog after daily colonic irrigations for a period of 5 months.

Obviously the conclusion of this experiment can not be applied to the human being. Daily irrigations over a period of five months are seldom, if ever, attempted in the human being.

Krusen (7) and Lichty (5) warn against permanent dilatation of the colon following the use of colonic irrigations.

Fineman and Snyder 8 reexamined roentgenologically the colons of 95 patients before and after one or more series of colonic irrigations.

To several of the patients in this series over 100 irrigations had been given over a 10 year period.

In none of the patients was there roentgenologic evidence of bowel dilatation or of increased redundancy or other evidence of bowel damage.

Finally, the possibility of perforation of the bowel mentioned by Lichty (5) has not been encountered by the author after a clinical experience with colonic irrigations during the past 15 years.

In approximately 10% of the cases, evidence of diverticulosis or diverticulitis has been encountered.

This, however, has not been a contraindication in the writer's experience to the administration of colonic irrigations.

The following 4 cases are presented as examples of the clinical effect of colonic irrigations when used in well selected cases:

Case I. Arthritis Where All Other Foci of Infection Had Previously Been Removed:

Mrs. A. O., age 34 Complaint: Chronic rheumatoid arthritis involving the hands and feet, with typical spindle-shaped deformity of the fingers. Duration of 10 years.

Patient had a mild secondary anemia. Blood sugar was 122 mg. Uric acid was 3.8 mg. Leukocyte count of 12,400.

The patient's tonsils had been carefully and efficiently removed, as well as all dead teeth, appendix, gallbladder, uterus, tubes and ovaries. As a result the patient was somewhat improved, but she still had considerable pain in her joints, particularly in her hands and had suffered from obstinate constipation for years. Roentgenographic examination of the colon showed it to be redundant with evidence that adhesions had formed between the liver and hepatic flexures.

A course of colonic irrigations, added to other forms of treatment previously utilized, produced marked improvement in this case.

During the past 9 years the patient has returned for three or four short courses of treatment. She still has some deformity in her fingers but all of her joints function normally and she is well and free from pain.

Case II. Essential Hypertension Complicated by a Mild Type of Gout:

Mrs. R. S. C., age 42. Complaint: Dizziness with occasional slight attacks of pain in the left leg along the distribution of the sciatic nerve.

Blood pressure was 230/110 and blood uric acid was 4.9 mg. The patient's abdomen showed a tender dilated cecum and ascending colon. Patient was given a series of colonic irrigations. In the eight years that have elapsed, she has remained perfectly well.

The pain in the left leg· disappeared, her blood uric acid content returned to normal and her blood pressure has remained around 160.

Diet restrictions alone had previously proved unsatisfactory in reducing her weight on account of lack of cooperation, but combined with colonic irrigations a very satisfactory clinical result has been obtained.

Case III. Mucous Colitis.-Mrs. G. W. F., age 48. Complaint:

Pain and tenderness in hands and knees, and a feeling of tiredness. The patient had been chronically constipated for years with occasional alternating attacks of diarrhoea.

Her appendix had been removed without benefit and for the past 2 years she had been under the care of an eminent New York gastroenterologist for mucous colitis involving the left side of her colon.

The result was fairly satisfactory but she still felt nervous and exhausted and suffered from alternating constipation and diarrhea. x-Ray showed a great deal of spasm in the sigmoid region with lack of haustration in the sigmoid and entire descending colon.

The patient was placed on a bland, nonirritating diet and given a series of colonic irrigations. Her gastro-intestinal symptoms, as well as her joint pains, immediately showed marked improvement as a result of treatment.

During the past five years the patient has remained on the diet and has found it necessary to take an occasional colonic irrigation. She has, however, been free from pain in her joints and has been almost entirely free from gastro-intestinal symptoms.

Case IV. Diverticulitis, Successfully Treated by Diet, plus Colonic Irrigations:

Mr. H. S. P., age 52. Complaint: Nausea, eructations of gas, weakness and a dull pain in the left side of the abdomen. On examination, the patient's abdomen was flat but there was slight tenderness on deep palpation over the left lower quadrant. x-Ray showed a redundant sigmoid and transverse colon. The sigmoid was extremely spastic throughout the entire descending colon. This was thought to be very suggestive of inflammatory changes around the diverticula.

The patient was placed on a mild, nonirritating diet, combined with colonic irrigations, as a result of which all gastrointestinal symptoms disappeared. An attempt was

made to keep the patient comfortable by the use of a bland diet combined with mild cathartics, without colonic irrigations.

After a few months his symptoms returned. These were promptly relieved by the use of one colonic irrigation a week. The colon has been re-x-rayed four times over a 10 year period and the spasm has entirely disappeared. On 2 occasions the patient has had a return of spasm in and around the diverticula.

On both these occasions, however, the patient had been badly overworked and nervous in regard to his business affairs. Apparently the colonic irrigations have not harmed the colon in any way and have not caused colonic dilatation." - in "Medical Clinics of North America", May, 1939.

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Remarks on Colonic Lavage

"**Indications:** The following common conditions, perpetual headache, "biliousness", flatulence, and many signs of indigestion and constipation will be removed, but the lavage must be employed in the right way and at the right time.

The same may be said in regard to many forms of colitis and many manifestations of so-called Rheumatism, of Gout, sciatica, and neuritis, things which were mentioned by certain of the speakers at the conference this summer in Bath on Rheumatic Diseases and put forward by Sir George Newman in his Presidential Address. (The Lancet, 1928)

In Germany, in so-called rheumatic cases, where the discovery of the septic focus is in question, it is usual to examine the results of a lavage to ascertain how far the intestine may be mechanically at fault, the procedure not excluding bacteriological examination.

These cases make up a large group in a general medical practice; in many of them temporary relief will be obtained promptly by lavage, but if permanent removal of the disability is to follow treatment considerable general care of the patient must accompany the procedure. In more serious diseases colonic lavage can only be looked at in the light of a general health measure.

Many mental conditions, and some forms of asthma, may derive great temporary benefit in this way, and particularly in certain subjects lavage of the colon makes a difference to the sense of well-being that may manifest itself in circumstances of physical or mental strain.

I wish to advance the following points:

1. Colonic lavage should be done under the direct supervision of a qualified practitioner.
2. The amount of fluid used must vary according to the capacity of the patient, and the fluid should be used as slowly as possible to avoid dilating the colon.
3. The actual fluid used can be varied according to the

symptoms of the patient-there are stimulating and there are soothing douches which can be employed in accordance with the conditions.

4. The value of colonic lavage is not obtained when it is only employed as a temporary measure, and by itself, to relieve some symptoms. Its real value is seen when it forms part of a general treatment in connexion with massage and appropriate diet, and when it is directed upon lines towards definite therapeutic objects." - Dr Violet M. H. Rendall, MRCS, LRCP in "The Lancet", 5 January 1929.

"In case High Enema is not practicable, saline infusions may be given. Mosher, of Albany, says the use of saline infusions possesses remarkable properties as a combined stimulant and sedative. In toxaemia and delirium it not only relieves symptoms, but sometimes saves life." - Dr L. Vernon Briggs, MD, Physician to the Mental Department, Boston Dispensary, in "Alienist and Neurologist", 1912.

Colon Irrigations Their Administration and Therapeutic Application

"The Colon Irrigation has come into extensive use for the removal from the bowel of abnormal mucus, toxic products and bacteria; therefore, as part of our therapeutic armamentarium, it deserves consideration.

Between enemas and irrigations there would seem to be no sharp dividing line, yet they are distinct in their purposes.

The term irrigation conveys the idea of washing; therefore, while the ordinary enema is given with the purpose of inducing defecation, the irrigation is administered, not to induce defecation, but to wash out material situated above the defecation area and to lavage the wall of the bowel as high as the water can be made to reach.

To accomplish its purpose an irrigation requires:

1. That the faecal mass in the lower colon shall have been expelled, and
2. That the liquid shall be passed into the colon so gently that it does not arouse the defecation reflexes.

Otherwise it is not a properly given irrigation.

The charge that colitis or permanent dilatation of the bowel may result from irrigations has not been substantiated. In many roentgen studies Snyder did not find dilatation of the bowel in any patient, though many had been subjected to large numbers of irrigations at close intervals. In a study of the effects of enemas, Soper found the rectal tone improved.

The Therapeutic Applications of Colon Irrigations

These are employed in chronic states of the bowel, such as are encountered in mucous colitis, intestinal putrefactive toxaemia and in cases in which a focus of
infection is believed to reside in the bowel, as in cases of:

1. Rheumatism
2. Neuritis
3. Secondary Anaemia
4. Sundry Run-Down Conditions

There are many other acute and chronic conditions in which an irrigation may be found useful.

1. A Colon Irrigation; is a process of lavage to be distinguished from an Enema.
2. It is given to dilute and wash out the contents of the bowel above the normal defecation area, to soften and loosen abnormal mucus, and to lavage the colon wall.
3. It leaves the colon more or less empty, and contracted and thus exerts a beneficial effect on its blood supply, and its tone.

4. It should be preceded by defecation and should be administered very slowly and without much pressure.

5. The charges that irrigations do harm by removing normal mucus, by lowering the tone of the bowel and by producing colitis are without foundation.

6. An irrigation is frequently a failure in the hospital ward, and in the hands of the unspecialized nurse." - Dr Walter A. Bastedo, MD, Sc.D., in "JAMA", 27 February 1932.

The Irrigation of the Colon

"Cold Enemata are preferable in small quantities, on account of the effect upon the body of the cold liquid and its marked tendency to stimulate peristalsis.

A 500ml of water at a temperature below that of the body is quite sufficient to produce the desired results in the treatment of atonic conditions of the colon or rectum.

Ordinarily, it is not necessary to employ water enema acts best and should be repeated a number of times if the desired results are a reduction of the body temperature.

There is no doubt that the cold enema employed in this manner will act as an antithermic, and, as well, stimulate renal and cutaneous excretion.

The hot enema of 43 C to 46 C degrees is useful in relieving many inflammatory conditions of the pelvic viscera, as the fluid is brought nearer to the various organs contained within the lower abdomen than by any other method.

Proctitis, colitis, prostatitis, ovaritis and disordered menstruation are undoubtedly susceptible of treatment, in part, by the hot enema.

The High Enema (coloclyster or entero-clyster) is intended to fill the entire colon without over-distention.

By placing the patient in the knee-chest, or right Sims position, the amount of water may be gradually increased to 2 or 3 quarts without serious harm or inconvenience to the patient.

The irrigation bag or reservoir should never be higher than 3 feet.

A short anal tube or tip only should be used, as the fluid is necessarily carried into the upper bowel partly by gravity and reverse peristalsis when the patient assumes either of these positions." - Dr Martin L. Bodkin, MD, FACS, Rectal Surgeon, St. Catharine's and Williamsburg Hospitals; Diagnostician Colonic Diseases, Brooklyn Diagnostic Institute, New York, in "International Journal of Gastro-Enterology", July 1921.

"Surgeons and obstetricians have learned from experience that when a patient has a sudden rise of temperature, which cannot be accounted for on the ground of infection, the best thing to do is to administer a cathartic or High Enema and thoroughly empty the bowel, a procedure which is generally followed by a prompt reduction in the temperature, pointing to the fact that faecal retention and absorption of toxic products were at the seat of the trouble." *- Dr Charles Clyde Sutter, MD in "New York Medical Journal", 24 February 1912.*

Relief of the Gall Bladder Infection

"When the gall bladder is enlarged and there is soreness and tenderness over this region, very warm Priessnitz compresses should be used continuously during the first 24 hours. As the tenderness subsides, the compresses can be omitted during the night and later on used only for an hour or so in the morning and afternoon.

Another local measure of value is the Colon Irrigation with hot saline solution.

Many pathological conditions of the liver are alleviated by this treatment." - Dr Hugh McGuire, MD, Alexandria, Va., in "Medical Treatment of Diseases of the Biliary Tract", 26 November 1916.

Anaesthesia

"What can be done to make the patient comfortable after anaesthesia?

In fact, there are many things that can be done that are usually not. Thirst is more bitterly complained of than anything else This can be almost entirely prevented by colonic injections of warm saline, 250ml to 500ml, every hour or two beginning as soon as the patient is removed from the operating table. This does not cause nausea nor is it often contraindicated by the nature of the operation, and it is of inestimable value in protecting the kidneys from the concentrated irritant. One to three injections should be given in every case in which the operation does not contraindicate, as a matter of protecting the kidneys, even if it did not prevent the intense thirst." - Dr C.E. Montgomery, MD Lecturer in Gynaecology Kentucky School of Medicine, in "Anaesthesia General and Local", The American Practitioner 1908.

Treatment of Summer Diarrhoeas

"In the treatment of summer diarrhoeas there seems to be 5 indications:

1. Stop all food.
2. Remove the cause.
3. Give rest to the affected part.
4. Allay thirst by cold water frequently given in small amounts.
5. Keep the surface temperature as nearly normal as possible.

All food is stopped for 24 hours.

Plain water or gruel is allowed in small quantities frequently repeated.

The initial treatment is one-tenth of a grain of calomel given every hour for 6 doses to be followed by a drachm dose of castor oil.

This should be sufficient to empty the stomach and small intestines.

In the severe fermentated cases immediately or following the castor oil a High Colonic Flushing is given.

In any of these conditions where the process bas lasted a week or longer and we have present the so-called colonic symptoms, namely:

1. Tympany
2. Tenesmus
3. Tenderness
4. Mucous, and blood

The case demands regular bowel irrigation, stimulation and support." - in "Modem Medicine", March 1908.

Water Externally is Only Second in Importance to Water Internally

"The history of Spa Treatment furnishes massive evidence worth studying.

Colonic Irrigation not only cleans out the lower bowel (made classic as a danger centre by Metchnikoff 1845-1916), **but also furnishes the best and simplest relief from toxic effects in many forms of genitourinary disorder.**

This diuretic action of Colon-Flushings - really invaluable - is alluded to in literature only incidentally, though it furnishes an excellent remedy in many Chronic Disorders where the Heart and Kidneys are competent, and renal inadequacy is a feature.

Of course, one should be careful to avoid overmuch of fluids in chronic nephritis and high blood-pressure with a weak heart (salt should not be used in this case).

Colonic Irrigations, employed in over a dozen bad cases, afforded a surgical friend of mine a curious and undesired reputation as a specialist in Rheumatoid Arthritis." Dr John Madison Taylor, AB, MD, Philadelphia, Read at the 12 annual meeting of the American Therapeutic Society, Boston, Massachusetts, 11 to 13 May 1911.

> *"Dr Bettmann, MD spoke of colonic.* ***We have in New York a person who claims to cure by flushing most of the things that are cured by colonic surgery, and the joke of it is he does. He eliminates the colonic toxic factor. If we want any more facts than that upon which to reason from cause to effect, I do not know where we are going to look for them. If we remove the colonic toxins by flushing or any other method, and if the patient is immediately better, what is the use in working out an elaborate syllogism? Lastly, I would ask Dr. Bettmann what he has to say with reference to a report from his fellow-townsman (Dr. Reed, MD) of the relief of epilepsy in cases that have been operated for intestinal stasis?"*** *- in "New York State Journal of Medicine", October 1915.*

Chapter 4

A Bio-Physiotherapeutic Procedure in the Treatment of Non-Malignant Diseases of the Colon

"There has been much written about colon pathology, its causes and treatment. Today the profession is familiar with the principal causes of pathological conditions of the colon.

Prolonged error in diet takes its place as one of the most frequent underlying causes.

Many colonic disturbances are, no doubt, caused by focal infection the primary site of which is located in the respiratory and upper digestive tracts and in the sinuses.

It is thought by some that the colon itself often harbours the primary focus of infection from which stubborn rheumatic, digestive, and other disturbances are manifested.

It is true that for centuries the physician has thought that many of the human ailments are caused by intestinal autointoxication, consequently from time to time the practice has been general to purge the patient regardless of the character of his illness. Cathartics cause many patients to become habitual users. The habitual use of cathartics contributes toward the production of a chronic inflammatory condition of the intestinal tract, especially the colon, with which goes, of course, a chronic infection.

Dr N. Phillip Norman, MD (Corrective Treatment of the Commoner Forms of Enterocolitis, International Clinics Vol.1, 33d series. 1923) conceived the idea that to obtain satisfactory results in the treatment of some diseases of the colon, the colon should be cleansed of all the putrefying and fermenting material as a first step in the process, and that exercise of the musculature of the colon is essential in order to bring the atonic type back to a proper functioning state, to overcome acquired partial obstruction caused by adhesions, and to relieve the frequently found spastic conditions.

The Technique of Colonic Drainage (N. Phillip Norman)

The nonsurgical mechanical drainage of the colon is a new technique for accomplishing what has heretofore been known as high intestinal irrigation. The technique takes into account the peristaltic cycle of the colon, which enables one to fill the colon through out its extent with the irrigating fluid.

The irrigating apparatus is arranged so that the valve mounted on the table is on a level with the top surface of the bed or table upon which the patient is to lie. The percolator is filled with the irrigating fluid. The patient is placed on the table or bed in either the right or left lateral recumbent position with thighs flexed to about 45 degrees. The air is expelled from the tube.

To prevent the fluid flowing out pressure is made with the thumb and index finger just back of the openings in the tube. The tip of the tube is lubricated and the patient is requested to raise the upper cheek of the buttocks with the hand; the operator then gently inserts the tube into the rectum for a distance of 3 or 4 inches or until the openings in the tube are just past the internal sphincter. The pressure on the tube is now released and the fluid is allowed to flow in, filling the colon by taking advantage of its peristaltic cycle.

After the fluid has passed the splenic flexure, it is well to have the patient assume the dorsal recumbent position.

The Peristaltic Cycle of the Colon

Peristaltic contractions of the colon are initiated by the passage of food residue into the cecal pouch or the dumping of faeces into the rectal pouch.

The introduction of fluid into the rectal pouch is an artificial measure for stimulating colon peristalsis.

The peristaltic pacemaker seems to be situated in the mid portion of the transverse colon at a point commonly known as Cannon's ring.

During irrigation, when the rectal pouch is distended, the

peristaltic contraction begins at Cannon's ring, spliting into two contraction waves, one traveling toward the cecum and the other toward the rectum.

During irrigation we are concerned with the contraction wave travelling toward the rectum, which, when approaching it, increases the pressure of the fluid instilled within the rectum, which creates a desire for defecation.

The flow of fluid is then reversed, and instead of flowing into the rectum, it is allowed to escape through the tube into a waste receptacle. The sudden decrease of the intrarectal pressure causes an instantaneous dissipation of the contractional wave and reverse peristalsis sets in, propelling the fluid remaining in the rectum and sigmoid to the higher levels of the colon.

This is reenacted until the reverse peristalsis of the lower colon has propelled the fluid into the right half of the transverse colon, when the next stimulus promoting peristalsis will cause the portion of the contraction wave, which is a reverse wave from Cannon's ring to the cecum, to fill the cecum with the instilled fluid.

The fluid can be demonstrated in the transverse colon and cecum by succussion sound or by auscultation.

This procedure is kept up until the colon is filled from the rectum to the cecum, and it is possible for the colon to retain from a gallon to a gallon and a half of fluid.

This requires from 5 to 7 minutes time.

The patient is then allowed to go to stool, and it requires from 16 to 30 minutes to empty the colonic tract, the colonic peristaltic cycle being this:

A propulsive wave from Cannon's ring to the rectum; a reverse wave from the cecum to Cannon's ring; and a mildly reverse wave from the rectum to Cannon's ring.

Whenever a portion of the cecal contents is disgorged to the left side of Cannon's ring, it is expelled during the next cycle. This peristaltic cycle explains the churning motion of the cecum and the moulding function of the descending colon and sigmoid.

This briefly describes what is seemingly a complicated technic, but one which, when mastered, is rapid, efficient,

and devoid of much of the unpleasantness that attends the usual high irrigation.

It is designated as a mechanical drainage because that is the prime purpose of its administration. In addition to its diagnostic and drainage value, it is useful in a correctional way, as for hydrostatically stretching adhesions or straightening out angulations of the colon.

This is a very painful and dangerous procedure, which should not be attempted by the physician until after he has had enough experience to formulate that intangible something called judgment before subjecting his patient to this nonsurgical procedure.

Case Reports

A brief description of five of the typical cases treated by the writer during the past year follows. Doctor Norman began the treatment of Mrs. R. and the latter part was given by the writer.

Case 1 Mrs. R. first came under treatment in June 1923. Age 57. Complains of sour stomach, frequent bowel movements of the unformed fermentation type often causing an excoriation about the anus. She experiences pains in joints and muscles which vary in intensity. Previous illness, childhood diseases. Typhoid fever at 30, mother of eight children, all normal. Patient has been in the hands of her family physician, who had a gastroenterologist in consultation. A chronic otitis media had been treated.

Pyorrhea had been present, necessitating the extraction of all teeth. Chronically diseased tonsils were removed. Gastric analysis showed a hypochlorhydria. Gastrointestinal series showed rapid emptying of the colon. No other pathology was indicated. Stools showed undigested food. No ameba nor parasites. Urine negative. Blood chemistry negative.

Blood pressure negative. The gastroenterologist and her family physician concluded there could be no permanent relief and prescribed hydrochloric acid and pepsin to be taken regularly after meals. Aspirin to be taken when bones

and muscles ached. She was advised to take a dose of Epsom salts once or twice a week.

This patient's condition had existed for about 10 years, gradually growing worse.

This patient has been known to the writer all his life, so he advised colonic irrigations, followed by implanation of milk cultures of the B. acidophilus. Patient had unconsciously been an excessive carbohydrate eater. All medicines were discontinued. Patient took 20 irrigations during a period of three months. After the first few irrigations she felt greatly improved.

Patient went to her home with instructions to drink 500ml of B. Acidophilus milk daily, to use sweet milk liberally, and follow the diet laid down for her strictly. October 1, 1924, patient was seen again by the writer. She has reduced 20 pounds, she has had no return of the intestinal trouble, and her joint and muscular pains are negligible.

She has just completed an extensive tour by automobile and trains and feels in better health than she has for years.

Case 2 - Mr. M. was first seen on 16 August 1923, a retired naval officer, aged 43. Retired for physical disability (neurasthenia) in 1920. History leading up to his retirement covers several nervous breakdowns. His chief complaints were and still are digestive disturbances, pains about the heart, and general inability to perform the responsible duties required of an officer of his rank. Patient has been suffering from constipation for years. He has become an habitual user of cathartics. Patient has consulted eminent specialists and has been treated by all the "Paths" without benefit.

Since his retirement patient has tried to do some light work in salesmanship, but can only work until about 11 a.m., when a fullness about the heart comes on, accompanied by extreme nervousness, and he has to quit for the day.

A list of the patient's usual diet was obtained, and it was found to contain an excessive amount of carbohydrates and fats. Much of the food was improperly prepared. Patient was a popular member of the wine mess in the old days.

Physical examination: Sallow complexion, puffiness under eyes, arcus senilis, both eyes, and mild hyperopia.

Uses glasses for reading. Teeth and tonsils negative.

Abdomen tympanitic. Reflexes negative. Laboratory findings: Urine negative, blood Noguchi negative.

Blood pressure S. 136, D. 90.

The sounds indicate a flabby heart muscle.

A colonic irrigation was given which demonstrated that there was a spastic condition in the descending colon apparently about the sigmoid.

A tentative diagnosis of spastic constipation and angina pectoris was made.

Colonic irrigations followed by instillation of milk cultures of B. acidophilus every second day were begun on August 18, 1923. Bacillus acidophilus milk was prescribed to be taken 1,000 c. c. daily by mouth.

August 20,1923: Patient reported an unusually satisfactory bowel movement

August 22, 1923: Patient feels much better, bowels better, not so nluch fullness in abdomen.

August 24,1923: Patient feels much better, had good bowel movement yesterday. He feels so much better that he goes out to work in afternoon. Patient is now on a diet plentiful in water-soluble vitamines with the fats and carbohydrates restricted.

August 27, 1923: Feels a little nervous (about a week or 10 days after patients are put on this treatment they experience a feeling of lassitude and nervousness, which I attribute to the absence of their usual toxin absorption).

September 20, 1923: Bowels moving fairly well but patient has some financial worry which has quite upset him.

September 24 to 27: Gastrointestinal X-ray series made. X-ray report shows the following findings: Fluoroscopic examination of the chest is negative except the aortic arch is slightly wider than usual.

There is no evidence of a saccular dilatation.

The shadows resemble those seen in cases of arterial sclerosis with high blood pressure. Esophagus negative.

Stomach fills normally and is of the hypotonic type.

The duodenal cap fills readily and is normal in outline.

Second and third portions of the duodenum normal.

6 hour examination shows the cecum and ascending colon well filled. Meal advanced almost to splenic flexure.

24 hour examination shows the whole colon well outlined.

48 hour and 72 hour examinations show the transverse and decending colon well outlined.

Some residue in the cecum and ascending colon.

96 hour examination shows the transverse and decending colon still well outlined.

Very small amount of residue in the cecum. The diameter of the haustral segments is considerably smaller than usual.

Conclusions

The transverse and descending colon appear spastic with delay in emptying time. The appendix was not visualized.

No organic cause of this condition found. Findings suggest spastic constipation.

28 September 1923: Irrigation, and milk culture instilled.

9 November 1923: Patient has had two irrigations and has drunk one to two pints of B. acidophilus milk daily during last month. A good bowel movement has been obtained almost daily. Has felt fine.

3 December 1923: Four irrigations given during last month. Patient feels good. Satisfactory bowel movements daily.

4 January 1924: Three irrigations during last month and patient has drunk milk as usual. Bowels move daily but occasionally feel a little tight. Patient is so much improved that he has rented an office and does as much work as the average normal man. There has been no change in blood pressure. The myocardial weakness persists, but anginal pains have been negligible.

4 March 1924: Weekly irrigations have been given and patient has drunk milk as usual. Bowels regular and feels fine. The spastic condition of the descending colon seems to have disappeared. Examination of the prostate shows the

left lobe to be slightly enlarged and tender.

A gentle massage was given.

11 March 1924: Patient has felt better in every way since prostate massage last week. Another massage was given today. Gland much less sensitive.

21 March 1924: Patient feels better. It is thought that the principal trouble now is caused by the irritable prostate. Irrigation given. Patient still drinking the B. acidophilus milk.

14 April 1924: Two irrigations were given during the last month. On 28 March a 24F. sound was passed. Slight resistance was met in the prostatic urethra. Patient has felt much better since sound was passed. The myocardial weakness seems about the same. Blood pressure still 136-90.

Glandular formula containing:

Adrenal, total, grs. ¼
Thyroid ext. grs. ½
Spermin ext. grs. 2
Calcium glycerophosphate q. s. for tablet
Sig. one before meals and at bedtime

1 May 1924: Patient has taken a position with the shipping board. He comes for an irrigation occasionally and drinks some B. acidophilus milk but not regularly. It is hoped that the above formula will act as a general tonic.

1 July 1924: 11 months after treatment began this patient has regular bowel movements and in general considers himself in very good health.

Prior to coming under my care he had been treated by neurologist and gastroenterologist of note and had consulted some of the questionable therapists including a chiropractor from whom he took a course of adjustments. No one ever materially benefited him. His diet and elimination were never, according to patient's statement, given any serious consideration. **It is evident that the diet and elimination played the most important part in restoring this patient to health approximating normal.**

Case 3 - 20 August 1923: Captain, United States Marine Corps, age 47, height 5 feet 10 inches, weight 180 pounds, florid complexion, all teeth bad, pus coming from gums, slight tenderness upon pressure over cecum. Blood pressure S. 130 D. 70. Urine negative. Examination otherwise negative. No previous serious illness. Has indulged lightly in alcoholic drinks but not excessively and, for several years, has practically abstained from taking anything. Present complaint began in Tropics in early 1922. His case was diagnosed gastritis, chronic catarrhal.

Patient's condition got so bad that in August 1922, he was surveyed to a naval hospital in the United States. The usual procedure was followed in treating such cases. His gastrointestinal series was negative, except for a stasis of the colon. There was some tenderness in the region of the appendix. Appendectomy was suggested to patient, but he declined, and requested to be sent to duty. He was allowed to go to duty about 1 October 1922.

Patient continued to have attacks of gas formation in the stomach accompanied by considerable cardiac distress bordering on collapse. Vomiting relieved this condition temporarily. Patient consulted a civilian gastroenterologist.

This specialist suggested a light, easily digested diet, and put the patient on hydrochloric acid and pepsin. Under this treatment patient's condition improved some for a time, but at this time he is in about as bad condition as he was a year ago.

Early in December 1922, the patient had one of the attacks described above and had to give up and return to the hospital Under supervision he improved and again refused appendectomy. He was sent to duty after 2 weeks.

A Colonic Irrigation was given.

Spastic constipation was evident From the history of the case it is evident that patient has gastritis, chronic, due to improper diet, and chronic constipation, spastic type.

A list of the patient's usual diet was obtained and the dietetic errors corrected. All teeth were extracted and plates made. Colonic Irrigation was begun, followed by

implantation of milk cultures of B. acidophilus. 1,000 c.c. of B. acidophilus milk by mouth was prescribed daily.

Patient experienced almost immediate relief from his gastric disturbances. The attacks which previously came on about 11 a.m. daily disappeared. Irrigations were given every second day. As improvement was noted the frequency was decreased to two per week, one per week, and then one every two weeks. October 1, 1923, patient was feeling so well that he stopped taking treatments.

September 15, 1924: The writer has been in close daily contact with the patient for the past year. During this time the patient has been performing his duties as a marine officer and has had no return of the alarming gastric symptoms. He has had some mild attacks of indigestion due to failure to adhere strictly to his diet In general the patient is in very good health.

Case 4 – 26 February 1924: Mr. S., age 39, chief clerk in navy yard. Patient referred to writer by a medical officer.

Chief complaint: Indigestion and high blood pressure.

He had typhoid fever at the age of 15 years. No other sickness until about 2 years ago, when he had an attack of lumbago. Had 6 posterior molar teeth extracted at this time.

Recently upon an insurance examination patient was found to have a systolic blood pressure of 155 mm. Palliative treatment was given by his family physician. Says that he has a pile which comes down at each stool. Patient's diet list shows him to be an extensive carbohydrate consumer.

Examination: Tongue is coated brownish. Large reducible hemorrhoid slightly excoriated. Prostate normal. Blood pressure S. 155,. D. 80. Blood chemistry normal. Irrigation of colon shows spastic condition of descending colon.

Following the irrigation a large amount of faeces was expelled. Blood pressure, S. 148, D. 78. Diagnosis: Spastic constipation resulting in intestinal autointoxication. A diet of rational combinations rich in water soluble vitamins and animal proteins was recommended. Carbohydrates were restricted. Colonic irrigations of warm water followed by instillations of a milk culture of B. acidophilus were begun.

1,000 c. c. of B. acidophilus milk by mouth daily.

4 March 1924: Blood pressure before irrigation S. 142, D. 80. After irrigation S. 132, D. 78.

8 March 1924: Marked improvement is evident. Bowels are moving well. Irrigated and milk culture of B. acidophilus instilled.

10 March 1924: Condition satisfactory. Lactose, gm. 60 daily, prescribed to be used as a substitute for glucose.

12 March 1924: Feels like a new man. Two good stools to-day. Blood pressure before irrigation S. 142, D. 70. When colon was irrigated to-day some spasticity was evident but marked improvement was noted. After irrigation, blood pressure S. 138, D. 74.

8 April 1924: Patient feels fine. Since 12 March he has been given four irrigations and B. acidophilus cultures. Blood pressure has not been higher than 138 systolic. Instructed to continue drinking the B. acidophilus milk. Irrigations discontinued.

20 May 1924: During past month blood pressure has ranged between S. 128, D. 66, to S. 136, D. 68. B. acidophilus milk discontinued. Patient was feeling so good to-day that he rode a bicycle a mile. Later he ran two blocks in order to get to the bank before dosing time. A partial collapse followed this exertion. After four hours the patient was again normal.

1 August 1924: Patient has been in good condition, working daily since last note was made. His systolic blood pressure is 138, diastolic, 80. It is considered that this patient is now practically normal.

The myocardium seems to have reacted nicely, the bowels are normal, and the blood pressure satisfactory. There has been no return of the indigestion.

Case 5 – 3 March 1924: Mrs. C. was referred to me by another patient. Chief complaint: Pain in the side (which she has been told is appendicitis), chronic constipation, and general weakness. Age 44. Climacteric over at 42. Family history negative. No sickness until about the age of 30 when she began to have cramps at beginning of menstrual periods.

Since that time she has had frequent attacks of pain in the right side which were not associated with menstruation.

Constipation has been constant since the beginning of this trouble. Various cathartics were used. For the past several years liquid petrolatum and citrate of magnesia have been the principal evacuants used. Appendectomy has been advised by civilian physicians.

Examination

Frail woman. Heart: Loud soft systolic murmur was heard at apex and over pulmonic area. Abdomen shows some tenderness upon pressure deep down in right pelvis.

Caecum and colon filled with faeces. Blood pressure, S. 112, D. 80. Colonic irrigation shows slight spastic condition about the sigmoid. A large amount of faeces was expelled following this diagnostic irrigation. Tentative diagnosis: Constipation with mild chronic inflammation of colon probably involving the appendix, and myocarditis, chronic.

5 March 1924: Treatment by Colonic Irrigation and instillation of milk cultures of the B. acidophilus. 1,000 c. c. of B. acidophilus milk by mouth daily. Patient advised to take light daily exercise, increasing the amount as she gains strength.

March 8, 1924: Patient feels fine. Bowel movement today the first in years without cathartic. Same treatment as on 5th.

Patient's usual diet shows poor combinations of food with an excess of fats and a deficiency in the green vegetables.

A diet of rational combinations was prescribed.

19 March 1924: Colonic irrigations given on 11th, 15th, and 19th. Bowels moving well. Patient feels weak.

22 March 1924: Colonic irrigation given. No pain in side.

Bowels fine. There is a tenderness above and to right of umbilicus which appears to be over pylorus of stomach.

Gastrointestinal X-ray series begun.

1 April 1924: Gastrointestinal report shows mild ptosis of the colon and colonic stasis. Heart tone is better.

Blood pressure S. 112, D. 68. No treatment.

29 April 1924: Colonic Irrigation given on 8th, 15th, 23rd,

and 29th. Patient has been about the same. Bowels have been moving well, and very little discomfort has been experienced.

6 May 1924: Right side has been painful during the past week. W.B.C., 10,000; polynuclears, 70%. No treatment given. Milk by mouth discontinued.

13 May 1924: Right side feels better. White Blood Cells:, 7,500; 67% polynuclears. Heart action much improved. The murmurs are very faint. No treatment. B. acidophilus milk by mouth, 1,000 c. c. daily for one week.

20 May 1924: Side still tender and occasionally painful. W.B.C. 8,800. Blood pressure S. 110 D. 66. Heart tone good.

15 July 1924: Patient has normal daily bowel movements and is much stronger. She is able to do considerable housework and much more walking than when treatment was first begun. Soreness in right side persists.

This patient claims to have improved considerably since beginning these treatments.

The constipation is cured and the heart murmurs have disappeared.

Summary and Comment

The regular daily emptying of the colon is recognized as a good procedure for maintaining and for reestablishing a good state of health.

A combination of colonic irrigations followed by the implantation of milk cultures of the Bacillus acidophilus, diet, and rational consideration of the patient's general condition seems to be an efficient means of treating chronic conditions in which constipation is a factor.

According to the research work done by Rettger and Cheplin and the clinical observation of Norman, the intestinal flora can be changed from an unfavourable to a favourable state by the implantation of the Bacillus acidophilus. It is certain that this change can be more readily brought about by thoroughly cleansing the colon and then planting the Bacillus acidophilus in large numbers directly into the colon.

Physicians who stand above the average in the profession advised Mrs. R. that there was no hope of materially improving her condition. She was put in the class of incurables and told to take hydrochloric acid and pepsin for her indigestion and aspirin for her pains the remainder of her life. Mr. M. had the best treatment possible while in the Navy. After his retirement he had consulted various specialists, and his condition was not improved.

Captain, United States Marine Corps, had received the regular recognized treatment for his condition, but was not materially improved. Mr. S. had been given the usual symptomatic treatment for a high blood pressure, and long before he knew about his high blood pressure had been given palliative treatment for indigestion.

The result was that he was at the point of a general breakdown when he was referred to the writer for treatment.

Mrs. C. had made the rounds of the various doctors, but gradually grew worse.

The cases described in this article are typical of the limited number treated by the writer by the procedure given.

All were markedly improved or cured.

Since July 1923, the experience of the writer in using the procedure described has been so gratifying that he takes this opportunity to recommend its use in hospitals, where complete data can be kept and close observation of the patients is practicable." - Dr H. V. Hughens, MD Lieutenant, Medical Corps, United States Navy in "U.S. Naval Medical Bulletin", Vol. 22, No. 5, 1925.

Chapter 5

Conditions that Colon Hydropathy Helps to Resolve

Myofascitis

A Pathological Explanation of Many Apparently Dissimilar Conditions

"Myofascitis is empirically diagnosed and treated under the following headings:

1. Lumbago
2. Sacroiliac strain
3. Sacroiliac relaxation
4. Sciatica
5. Arthritis
6. Strain of lumbar muscles
7. Rheumatism
8. Tennis elbow
9. Glass arm
10. Charley horse
11. Contusion
12. Low back pain
13. Sciatic scoliosis
14. Bursitis
15. Ruptured muscle fibers
16. Toxic wry neck
17. Neuritis or crick of shoulder or neck
18. Flat feet, (particularly the juvenile type)

Because its local symptoms closely resemble those of the conditions just listed, it has successfully masqueraded under these diagnoses for years by concentrating the physician's attention on these local or secondary manifestations, usually deemed orthopedic in nature, rather than upon the underlying cause, toxicity of the blood.

The term "Myofascitis," which I introduced in 1927, is a better designation, inclusive of the widely diversified manifestations and a multiplicity of symptoms all having a common origin, namely, toxic poisons, originating in infective foci or in faulty intestinal metabolism.

It simplifies rather than complicates our diagnostic nomenclature by pointing to this common origin, and rationalizes treatment along one definite line instead of many and varied methods based upon misconception.

The toxic condition of the blood which underlies myofascitis is evidenced locally by low-grade inflammation of the muscles and fasciae, the fascial insertions of muscle to bone becoming particularly hypersensitive.

Pull or traction on these sensitive fascial insertions produces marked symptoms, out of all proportion to the degree of inflammation that is evidenced clinically.

Faecal Analysis as Indication for Colonic Irrigations.

Without going into a discussion of the toxic etiologic influence of histamin, I am convinced, after studying hundreds of cases in which I have had stool examinations made, that histamin in large quantities in the colonic content is an index of toxicity of the stool, whether it is the principal offending toxic agent or not. I find it is a very helpful guide to treatment, to have stool examinations made in practically all cases of suspected myofascitis.

Treatment

Since toxic absorption is the underlying factor, treatment is primarily aimed at this, and secondarily at the local orthopedic manifestations. In cases seen early, mechanical treatment of the latter is entirely avoided, except for a short period in the most acute cases.

Even in cases seen late, the duration of such treatment is markedly diminished.

Of the many possible foci of origin of toxicity, the colon stands at the head in frequency. In the majority of the cases which I have seen it has been the offending source. It has further been observed that in case of long standing oral infections, whether the primary focus be in tonsils, teeth, antra or other frontal sinus, there is likely to be a residual and more trouble some toxicity in the colon.

In other words, these conditions add to the likelihood of toxicity from the latter. When the primary oral focus is eliminated it has become my common practice to carry on a supplementary treatment of the colon.

Colonic Lavage. As soon as a report indicating toxicity has been made on the faecal analysis, the colon is treated daily with medicated lavage.

There is no need of extensive apparatus for this. A great deal of undesirable practice has grown up, furthered by ambitious manufacturers, to use apparatus of more or less complicated nature to impress the patient, and actually accomplishing very little so far as lavage of any appreciable portion of the colon is concerned." - Dr Fred H. Albee, MD, FACS, in "American Journal of Surgery", January 1934.

> *"Rickets is a chronic disease of nutrition. The ligaments show evidence of impaired nutrition in an undue laxity, especially in the lower extremities. Here there may be hyperextension of the knee-joints, but more characteristic are the weak ankles. Flat foot due to muscular and ligamentous weakness is common, a deformity which is increased by the improper weight distribution resulting from bow legs and knock knees." - Dr Arthur R. Crandell, MD in "Rhachitis", The Boston Medical and Surgical Journal, Oct. 1901.*

"One may anticipate many things from colonic intubation; notably the prevention of appendicitis and the cure of autointoxication. One may achieve Metchnikoff's Utopian conception of macrobiosis (long live or longevity) by thorough colonic cleanliness." - Dr Albert Abrams, AM, MD in "Monthly cyclopedia and Medical Bulletin", 1913.

Diseases of Metabolism Treated at the Carlsbad of America

"This is a treatise of medical Hydrology and the diseases amenable to it (Dr William Edward Fitch, MD, 1930).

The chief purpose is to emphasize the advantages of the Bedford Springs resort as a health and recreation center.

A large part of the book is given over to a consideration of certain diseases such as:

1. Gout.
2. Obesity.
3. Arteriosclerosis.
4. Neurasthenia.
5. Intestinal States, and others.

Attention is directed to the renewed interest in medical hydrology. The author calls the Bedford Spa, the American Carlsbad and cites the diseases treated there.

Practically every branch of resort therapy is discussed including Crounotherapy (treatment of disease by a course of drinking or bathing, aided by a special dietary and exercises, at a mineral-spring resort), Balneatherapy, Dietotherapy, Massage, etc.

The subject of **Myofascitis** is taken up in a separate section in the latter part of the book.

This term is defined as an inflammation of the voluntary muscles and fascia at their insertion into the periosteum and the bony structures to which they are attached.

In reality it is a toxic myalgia, an inflammatory reaction of the fibrous supporting tissue to extraneous poison which may be bacterial or toxic absorbed from the colon.

In connection with this special section such subjects as medical treatment, Mechano-Therapy, Colonic Irrigation, Dietotherapy, Crounototherapy and Balneotherapy are elaborated upon in some detail.

The reaction which follows the one on Myofascitis is entitled, Putrefactive Intestinal Toxaemia.

After the general consideration, definition, etiology and symptomatology, the treatment is detailed.

Here again the importance of Dietotherapy, Colonic Irrigation, Crountotherapy and Balneotherapy are stressed.

The views expressed in this writing are in many instances supported by authorities. In general, however, the reviewer is somewhat reluctant to acquiesce in all that is stated.

A center such as is described is well worth knowing about since occasions arise frequently when certain patients can be referred for beneficial treatment.

The renewed interest in medical Hydrology and Balneotherapy is not at all surprising since the value of these branches of therapy have been underestimated by American physicians.

This has been due to a lack of knowledge of the subject.

Foreign articles have contained such encouraging reports that we can no longer ignore the fact that spa therapy has a definite place in the management of some chronic diseases." - in "Archives of Physical Therapy X-ray and Radium", February 1931.

Gout Crystal Deposition Arthropathies

"However, gout is not the most common crystal-induced arthropathy.

The arthropathies that result from the body's response to calcium-containing crystals, those of calcium pyrophosphate dihydrate or basic calcium phosphates, occur more frequently.

In fact, it is likely that everyone will develop some sort of calcium-containing arthropathy if they live long enough.

Furthermore, although **each crystal type can induce an acute monoarticular disease, each can also be associated with a variety of other clinical presentations.**

Thus, the crystal-induced arthropathies are common and complex diseases.

Gout is a disease caused by the deposition of monosodium urate monohydrate crystals in joints and surrounding tissues.

Symptomatic crystal deposition includes attacks of, typically, acute monoarticular arthritis; tophi, which elicit a chronic inflammatory response causing a destructive arthritis; and urolithiasis.

The natural course of classic gout passes through 3 stages: asymptomatic hyperuricemia, acute intermittent gout, and chronic tophaceous or advanced gout." - in "Crystal-Induced Arthropathies Gout, Pseudogout and Apatite-Associated Syndromes", 2006.

"Gout and other crystal deposition arthropathies, are significant medical disorders and health problems that plague the population and have seized the imagination of biomedical researchers.

Crystal deposition is produced by supersaturation of different solutes in tissue extracellular fluids.

A substantial variety of crystals (or stones, alternatively termed "calculi") can be formed, and at different locations, such as pathologic deposition of crystalline salts in the biliary tract and urinary tract.

Pathologic calcification with hydroxyapatite in the extracellular matrix in arteries in atherosclerosis, diabetes mellitus, chronic kidney disease, and aging, and calcification at sites of tissue degeneration of necrosis is a very common form of crystal deposition.

Gout is the oldest recognized example of a systemic crystal-deposition disorder that causes arthritis.

The connective tissues of the joint are primary sites of urate crystal deposition, and gout is principally a rheumatic disease.

However, **gout also affects the kidney via interstitial urate crystal deposition or tubular formation of uric acid urolithiasis and promotion of oxalate urolithiasis.**

Furthermore, there is a large and growing body of evidence, reviewed here, that renal and vascular effects of soluble urate in hyperuricemic individuals promote hypertension, renal dysfunction, and cardiovascular disease complications that are linked to elevated risk of mortality.

The last 3 decades have seen gout markedly increased in not only prevalence but also clinical complexity in the USA and other countries.

A new epidemiology and clinical landscape in **gout is being carved by a perfect storm of dietary mega-trends, increased longevity, increasingly prevalent co-morbidities (such as hypertension, obesity, metabolic syndrome, and chronic kidney disease), and iatrogenic factors including prescription diuretic use."** - in "Gout and Other Crystal Arthropathies", 2012.

Affections of the Genitourinary Organs

Prostatitis

"In inflammation of the substance of the organ, besides the symptoms of granular prostatitis, there are aching or stabbing pains at the anus, sacrum, or perineum; pain at the supra-pubic region is a common sign.

There are also radiating lumbar or femoral pains after exercise or long journeys, general languor, malaise, or depressed spirits. Increased frequency of micturition is often absent; when present, it is felt by day, not by night.

The flow of urine is altered by delay at the beginning, which may amount to retention.

Dull pain after micturition, sometimes spasm at the end of the flow with a sense of more to come, are complained of.

In cases of long-standing, micturition during sleep is a symptom; constipation is almost invariable.

When the congestion is great, there is pain during defecation, and between these acts a sense of weight at the anus or in the perineum.

Pain in the testes, when it comes, is simply a neuralgia.

There is constantly hypersecretion of mucus.

In some patients the organ recovers its natural condition in a few weeks, but usually the disease drags on a course more or less wearisome; thus the termination is very uncertain.

Relapses are almost sure to follow if the patient exceed in his diet or regimen. In relapses, small abscesses often collect in obstructed ducts, which usually empty themselves through a duct before accumulating much.

Sometimes the inflammation spreads to the parenchyma,

and the prostate then becomes unyielding to the touch, hard, and sensitive.

The enlargement of the organ may last long.

The increase in size may be symmetrical or only affect one part, giving the sensation of irregularity or lobular form when felt by the finger.

In course of time the nodules may disappear, and the organ regain its natural size or even shrink below it, and feel quite firm and smooth.

Local Treatment

When the organ is enlarged, soft and not tender, a very good remedy is the cold sitz bath, taken at first for 1 or 2 minutes, once or twice daily, at a temperature of 10 C, gradually prolonged to 10 minutes, and lowered to 2 C.

The cold douche on the perineum or anus is also useful.

Cold enemata are more generally beneficial than baths: 60ml to 120ml of cold water thrown into the rectum daily and retained there, beginning at 7 C, and gradually lowered to 2 C.

Masturbation is a frequent provocation of prostatitis, sometimes in the acute form, more often in the subacute or chronic forms.

In the mildest form of prostatitis through masturbation the prostate bleeds easily, so that the urine is often tinged with blood, smoky or even coffee-coloured.

If felt per rectum, the organ is found little changed from the natural condition.

General malaise, inappetence, and slight elevation of temperature usually accompany the bleeding.

Bleeding from the slightly congested prostate may be copious in young men when it follows prolonged venereal excitement and excessive copulation; commonly very copious when thus originated; it may be profuse for 1 hour or one and exhaustive." - Dr Matthew Berkeley Hill, FRCS, Professor of Clinical Surgery, University College, in "The Lancet", 6 July 1889.

> ***"If the patient is a woman and is found to be suffering from some disturbance of the uterus or ovaries, these should be treated first or synchronously with the colon disease."*** *- Dr A. Everett Austin, MD in "Diseases of the Digestive tract and Their Treatment", 1916.*

"The successful treatment of prostatitis must take in consideration the removal of causes and the specific treatment of the gland.

The diet should be regulated or modified so that the patient will eat a large amount of fruit and vegetables, which will help to relieve the constipation.

He should be urged to take a moderate amount of outdoor exercise suitable for his age.

The patient should be urged to exercise until he breathes rapidly and aerates the lungs completely.

The specific treatment of the gland will depend upon the type of prostatitis present. In the tubular type, mild prostatic massages should be given every 4 to 5 days.

The bowels should be kept open with mild laxatives and enemas. The colon should be regarded as a focus of infection where colon bacilli are the predominant organism.

In this condition it is well to change the bacterial flora of the intestinal canal from a putrefactive to a fermentative state." - Dr J. Rector Nicholson, MD in "The Treatment of Infections of the Prostate Gland", Texas State Journal of Medicine, 1941.

Conditions that Respond to Colonic Irrigation

Spastic Constipation

"The patient is irrigated daily for 4 or 5 days.

In determining the classification of constipation, one must consider each individual differently.

One patient may be absorbing toxic products from a stasis when having 2 movements a day, while another may have a healthy colon and have but one and that a very small passage.

In dyschesia (difficulty in defecation) or constipation of the lower colon and rectum the use of a warm solution to wash out all retained material followed by a cool solution to tone will in many cases give excellent results.

Atonic Constipation

For several days clean out the colon thoroughly.

Then reduce treatments to 3 times a week. Assume they are on Monday, Wednesday and Friday.

Reduce the treatments as the patient improves to 2 and then 1 a week.

Electrical Treatment: The use of the sine wave for 10 minutes following each irrigation hastens recovery. Do not use electrical treatments after the duodenal lavage in any case.

Diet: Plenty of vegetables to provide bulk to stimulate. Drink water freely. If gas is distressing avoid all uncooked fruits and vegetables. Urge patient to relax rectum in morning at the same time that the bladder empties. Drink water before breakfast. Avoid meat until toxaemia clears.

Mucous Colitis
(Irritable Bowel Syndrome)

Irrigate colon with 3 times a week. Drop treatments as patient improves.

Electrical Treatment: Ultraviolet lamp front and back following colonic irrigation for sufficient time to produce a first degree erythema only. Continue treatment to produce a good tanning. Diathermy is not contraindicated.

Excessive Flatus in the Colon

Colonic Irrigations 3 times a week.

Arthritis, Rheumatism, Sciatica

Colonic irrigation is useful in combating the above disorders. Treatments after the first week are 3 times a week.

If gallbladder infection is suspected, client to have one tea spoon of olive oil to aid in drain off gallbladder.

Electrical Treatment: Diathermy followed with slow galvanic-sinusoidal through liver— also treat local areas in same manner except in Sciatica; use Oudin spark.

Diet: Same as in intestinal toxaemia except particular attention should be paid to food that contains uric acid or its mother substances. Drink freely of water.

Malnutrition

In constipated individuals there are many cases that are underweight. Many of these people have been taking mineral oil for years. We know the system can be nourished by food if the nutritional end products are absorbed.

If the patient has a heavy mineral oil adhering to the mucosa it is doubtful whether much assimilation takes place through this mineral oil. Very little assimilation takes place in that part of the tube. Most of the end products of food digestion are assimilated before the food reaches the colon.

Mineral Oil was found to he present in the dejecta for days after the last had been taken.

In malnutrition cases **it is essential to flush out the colon regularly.**

An outline for treatment would be: **Colonic Irrigation for several days; then reduce treatments to 3 times a week.**

Electrical Treatment: General irradiation with infrared followed by ultraviolet—first degree erythema, treat front and back of torso and popliteal spaces.

Ulcerative Colitis

In the past 6 years we have treated 7 cases of ulcerative colitis and 4 of the amebic type. **All recovered.**

It should be a part of the treatment of every case of amebic dysentery to treat the case **with colonic lavage following.** It prevents the formation of adhesions, twists, etc., that invariably form after a siege of this disease.

Electrical Treatment: Daily exposures of infrared and ultraviolet.

Diet: Diet is extremely important.

Enteritis

The colon should be irrigated, treatments 3 times a week.

Electrical Treatment: Ultraviolet lamp preceded by infrared irradiations.

Diet: Milk diet for first week, then gradually reinforce diet with semi-liquid food and third week solid food may be given. Fruits and vegetables. Eat warm food. Avoid cold drinks. Avoid excitement.

Dysentery

Same treatment as under ulcerative colitis.

Kinks, Twists and Adhesions

There is no definite irrigation treatment for the above anatomical conditions. However, in many cases that were x-rayed before treatments the second and third x-rays taken the second and third months showed that the kinks, twists, and in some cases where adhesions were suspected, had cleared up considerably.

This was no doubt due to the toning effect of the solutions, mechanical treatments, and a change of flora to an acidity that would stimulate peristalsis.

Also, in not a few, the kinks remained the same but the gas ceased to distress, constipation cleared, etc.

As a rule such discomfort and pain is due to gas pressure resulting from putrefying or fermenting material that has lodged above the anamalous condition.

Note: In all cases a complete Rectal and Physical Examination should precede Colonic Irrigation." - Dr B. R. LeRoy, MA, MD in "Practical Colonic Irrigation", 1931.

Enemas in Labour

"It has always been my practice to give an enema at the commencement of labour.

With the bowels well cleaned, in 15 years no patient thus treated has failed to make a good and quick recovery.

When labour pains are slow, I inject per rectum, dilate vagina and cervix with hand and thus avoid the use of the forceps." - Dr C. E. Boynton, MD, Smithfield, Utah, "Medical Brief", February 1904.

Pneumonia

"Treat Pneumonia by keeping the patient full of hot lemonade. It should be drunk as hot as possible and without sugar. Apply cold applications to the chest and hot bran poultices to the back. Keep the bowels cleaned out by high rectal injections of hot water. If the heart needs sustaining, use a Combination of capsicum, hydrastis and scutellaria." - Dr J. A. Burnett, MD, Little Rock, Ark., "Medical Brief", February 1904.

Lobar Pneumonia

"Lobar pneumonia, or genuine, (as distinguished from broncho-monia,) or croupous or fibrinous pneumonia, pneumonitis or lung is a systemic infection having for its characteristic lesion an inflammation of the elements essential to pulmonary respiration; that terminal bronchioles and the air vesicles with the blood capillaries rounding them-the lung parenchyma.

The presence and growth of pathogenic bacteria are essential to the existence and development of lobar pneumonia.

This disease is now properly placed among the general or systemic infections; formerly it was incorrectly classed among diseases confined only to the lungs.

The focus of infection is in the lungs; but other organs and tissues are involved and often very seriously.

Indeed the ravages of the disease are sometimes worse in other organs than the lungs, the kidneys, for example.

In Roosevelt rectal saline injections are given, especially for alcoholics and when nutrition is failing, 250ml of a normal salt solution are introduced every 4 hours through a funnel attached to the end of a catheter; these injections are well retained and seem to be of decided benefit.

In addition to this excellent resume the following considerations are to be emphasized:

Elimination as a fundamental principal here, as in Therapeusis generally.

We do what we can to rid the organism of the toxins generated in Pneumonia; and this by means of the Emunctories: the bowels, the kidneys and the skin." - Dr John B. Huber, MD in "Lobar Pneumonia: Its Causes, Symptoms, Prevention and Treatment", The American Journal of Nursing, December 1913.

Rosacea

"The importance of this affection is apparent when we consider the more or less permanent disfigurement which results from neglect or improper treatment.

The lesion of rosacea consists of erythema, inflammatory papules and pustules, with dilated superficial blood vessels, and chronic cases result in hypertrophied connective tissue changes.

The papules and pustules are not situated around the comedo, as in acne, and the inflammation is more diffuse.

The distribution of rosacea is limited to the face, the

middle third embracing the nose and cheeks being the most frequent location.

Among the predisposing causes are age, anemia, and lowered vitality with sluggish circulation.

Indigestion, either gastric or intestinal, is present in all cases to a greater or less extent, as is also constipation." - Dr Thurston Gilman Lusk, MD, Adjunct Professor of Diseases of the Skin, New York Post-Graduate Medical School and Hospital; Dermatologist to Bellevue Hospital Dispensary; Member of County Medical Society, Society of Dermatology and Genito-Urinary Surgery, New York City, "Medical Brief", February 1904.

Chronic Constipation and Its Treatment

"To attempt the consideration of Chronic Constipation in all its forms in so limited an article would be impossible.

It is my intention to refer to only 3 varieties, viz.:

1. Constipation due to physiological changes only
2. Due to atony of the Intestines
3. When associated with catarrhal conditions of the Intestinal tract

These 3 being the most frequent.

All other treatment is of little value without the use of colonic lavage properly administered." - Dr Milton H. Mack, MD, Professor of Gastro-lntestinal Diseases, Illinois Medical College; Associate Professor Gastro-Intestinal Diseases, Post-Graduate Medical School, Chicago, in "Medical Brief", July 1904.

Convulsions in an Adult from Copremia

"My reason for reporting this case is the remarkable symptoms the patient exhibited. On Sunday 29 May, at about 1 o'clock in the afternoon, I was summoned to see the patient, whom I was told, was having very violent fits, requiring 4 men to hold him in bed.

I reached the patient's house at 1:10 pm and found a well developed man, 35 years of age.

He was in bed, and there were 4 fair-sized men endeavouring to restrain and keep him in bed. The patient was unconscious and was having a tonic convulsion, his head was drawn well backwards, the eyes were shut and there was marked opisthotonus (spasm of the muscles causing backward arching of the head, neck, and spine).

The convulsion lasted about two minutes. He did not regain consciousness after tile convulsion, his radial pulse was 90, the respirations were 16, his temperature, by the rectum, was 100.2 degrees Fahrenheit.

The skin was dry, there was no inequality of the pupils and the reaction to light was present but markedly sluggish.

The head was still retracted slightly and resisted any effort to draw it forwards.

There was no "risus sardonicus" (abnormal, sustained spasm of the facial muscles that appears to produce grinning), the facies (facial expression or appearance), were quiet, save at the beginning and during a convulsion, when the face was markedly distorted movements of the extremities did not produce convulsions.

After a few minutes the patient had another convulsion, beginning not in any one extremity, but apparently in all simultaneously; the head was retracted backwards to an extreme degree, opisthotonus was extreme and it required the united efforts of the four men to keep him in his bed.

I could not detect his radial pulses during the convulsion, which lasted one 1 and 45 seconds. There was no effort to bite the tongue. After the convulsion the patient was in about the same condition except that the pulse was 106.

There was no odour of liquor, urine or any drag on the patient's breath. I was able to elicit the following history from the patient's wife: For several years her husband had been having more or less trouble with his stomach, and about 5 or 6 years ago he had an attack somewhat similar, she had heard, to the present one; 2 years ago, he had had another attack, but not nearly as bad as the present one; he had been all doubled up and was unconscious for a few minutes.

He had been relieved after he had vomited and his bowels had moved well; there had been no convulsions at that time.

For the past month, she said, her husband had been complaining of his stomach and had not been in good health. He had not, to her knowledge, eaten anything unusual in the last few days.

Two days before he had drunk a few bottles of beer, but he had not become intoxicated: he was a very moderate user of alcohol. In the morning he had complained of pain in his stomach, the pain being about the epigastrium, and she had called in their family physician to see him.

The doctor came and gave him a couple of pills to move his bowels and told him to take a dose of salts afterwards.

This the patient had done. His physician then gave him a hypodermic injection of morphine to relieve his abdominal pain and left about noon.

About 12:30 the patient began to complain of very violent pain in his abdomen and the family physician was sent for.

Soon afterwards the convulsions commenced. There were no strychnine tablets in the house, and to the best of his wife's knowledge her husband had not taken any strychnia for a long time and was not in the habit of taking it.

Although the convulsions appeared to be like those caused by strychnia poisoning, on close observations there were some well marked differences; the risus sardonicus was absent, the patient was not conscious between the convulsions, nor could they be elicited by manipulation of his extremities, by noise, etc.: there was no respiratory embarrassment, nor was there any sweating and there was entire absence of any history of strychnine poisoning.

I was therefore forced to make a diagnosis of Copremia and to institute treatment for that condition.

I gave the patient a hypodermic of one-tenth of a grain of apomorphine, all that I had with me.

I sent after some croton oil and more apomorphine and a restraining apparatus, for the men were growing tired with their struggles with the patient.

Before my messenger returned the family physician appeared, and was as much puzzled as I was about the case.

He did not have either apomorphine or croton oil with him. but he went after some at once and returned very promptly with the 2 drugs and we then gave him a 6^{th} of a grain of apomorphine hypodermically and four drops of croton oil suspended in a dram of olive oil by mouth.

A few minutes after the apomorphine and oil was administered the whole character of the convulsions changed, and instead of there being marked opisthotonus the patient began to double himself up forward, 17 minutes after the oil had been given him he regained consciousness and complained of intense nausea and tried to vomit, but did not do so.

He got up and voided a little urine into a vessel.

It was now about 2:20 in the afternoon. During the time I was with the patient he had about 14 or 15 convulsions, all of a similar character, and the duration of each convulsion was about the same until he had had the croton oil and the apomorphine.

The family physician confirmed what I had already supposed to be the case, namely, that the two pills he had given the patient were simple laxative ones and not containing strychnia.

For the subsequent history of this case I am indebted to the family physician, Dr J. C. Twitty.

He told me that he gave the patient **a high enema that afternoon with good results.** He catheterized him but did not secure any urine. The patient had moderate fever that night, was more or less nauseated, but did not actually vomit. The bowels moved well again that night. In all the patient passed 7 or 8 pounds of faeces.

The next day the patient was semi-delirious and had moderate fever and a mild suppression of urine, which, however, yielded readily to treatment.

The patient was up and out the day after this. I saw him a few days later, and he was unable to throw any light upon his attack, except to state that he had not taken, any strychnine or eaten anything unusual.

He also told me that he had had similar attacks before, which, however, were not as bad, and which yielded readily to treatment, said treatment being medicines to move his bowels.

I have made a search of the literature at my command here and I have failed to find anything like the above case.

I may say that one week after the attack the patient was in as good, if indeed not better, health than he has been for some years." - Report of a Case by Dr Philip Norris, MD, Anaesthetsist to the Rutherford Hospital, Rutherfordton, N. C., in "Southern Medical Journal", July 1910.

Treatment for Hymenolepis Nana Infestation

Dwarf tapeworm (also known as Rodentolepis nana, Vampirolepis nana, Hymenolepis fraterna, and Taenia nana) is a cosmopolitan species though most common in temperate zones, and is one of the most common cestodes (a type of intestinal worm or helminth) infecting humans, especially children.

> ***"The intestinal canal should be emptied as thoroughly as possible without weakening the patient. Restricted, chiefly liquid diet, for a day or two previously; and colonic flushing, the day before, constitute good preparatory treatment."*** *- in "Journal of the American Medical Association", 1 January 1921.*

Thrush Complicated by Acute Poly-Arthritis in an Infant

"After careful examination, I noticed the left ankle red swollen and extremely tender. Simultaneously the left knee and left wrist showed the same signs. Wet dressings were applied continually, and ***hot Colonic Irrigations were given every 4 hours. In 3 days the swelling began to subside, and within one week, there was complete recovery."*** *- Dr Morris Goldring, MD in "JAMA", 1 January 1921.*

Treatment for Nephritis

"Dr C. G. Kerley said that the most characteristic symptom of scarlet fever is the sore throat; the other symptoms may be exceedingly slight and easily overlooked. He has known the period of incubation, in exceptional instances, to be as long as 12 and 14 days. ***He has found Colonic Washings at 43 C, the most successful treatment for the nephritis."*** *- in "JAMA", 5 May 1900.*

Treatment of Typhoid Fever

"A few years ago I treated a case where the toxemia was very severe, effecting the nervous system profoundly, was given about a **4 litres of lemonade each 24 hours, and an enema each evening, made an excellent recovery in 5 weeks without any special internal antiseptic or febrifuge, other than Hydrotherapy."** - Dr J. A. Reader, MD, in "Typhoid Fever Treatment", Transactions of the National Eclectic Medical Association, 1908.

Treatment for Scarlet Fever

At the annual meeting of the New York State Medical Association, October 17th to 20th (Med. Record, October 22nd), Louis Fischer read a paper entitled "Clinical Observations in Scarlet Fever, with Special Reference to the Heart and other Complications".

He said that in that disease more attention should be paid to the heart and less to the temperature.

Some important questions arose for consideration, such as:

1. Was the temperature a positive indication of the condition of the patient? A mode rate rise of temperature was often en countered in the most malignant forms of the disease, and, on the other hand, the mildest forms of scarlet fever some times begin with a temperature of 102 to 105 F.; therefore one could not say that very high fever was any guide to the severity of a given case.

2. Does fever invariably indicate disease? No. This was a fact that he bad frequently verified. He had operated on cases of empyema in which there had been a normal temperature for days, and he had seen other suppurative complications with out any fever. He was convinced that too much stress was laid on the fever, and the temperature curve was given far more credit during convalescence than it deserved.

3. Was the decline of temperature always a favourable sign? A drop of several degrees in the temperature did not indicate improvement in all cases. Frequently a complication will be detected when the temperature indicated improvement.

He believed the toxins of scarlet fever inhibited the proper action of the thermic centre in the brain, because the most malignant form of this disease frequently showed no rise, or only a slight rise above the normal.

4. By which symptom should we be guided in determining a favour able or unfavourable termination? The

greatest attention should be bestowed on the condition of the heart.

The pulse, its character, its frequency, and its tension were the most important guides.

The necessity for immediate support of the system was apparent if the heart and pulse rate were studied.

Experience had taught him that he was facing a danger point when feeble or muffled heart sounds were noted or a bruit was heard, when, during this same time, a normal temperature would have been a misleading factor.

The mortality in private practice was high, and he accounted for it simply by the one fact, that children were not kept in bed long enough to permit the toxaemia to be modified.

Every case of scarlet fever was kept in bed at least 4 weeks. The temperature of the room should be between 68 F. and 70 F. and ventilated frequently.

The temperature was no guide as to the time when the child should be permitted out of bed.

The heart and the pulse should be the true deter mining guide as to the prognosis and the condition of the patient.

The diet should be liquid, principally of milk and alkaline waters.

The Emunctories should be stimulated.

A Hot Saline Colon Flushing - 1 or 2 quarts - at a temperature of 115 to 120 F. should be given once a day after the first week, regardless of the necessity of the same.

It stimulated diuresis, cleansed the bowel, and nourished the blood." - in "British Medical Journal", 12 November 1904.

Treatment of Neurasthenia

"Loss in weight is the rule, and a long course is often necessary to re-establish the organic functions on a healthy basis. Liberal draughts of mild saline waters are exceedingly beneficial in promoting nutrition and the elimination of the toxins from the body. ***Colonic flushings****, to counteract the constipation and clear the large bowel, will be found valuable.* ***They are stimulating to the circulation and sedative to the nervous system.****" - Dr Frederick A. McGrew, MD in "Neurasthenia", JAMA, 9 June 1900.*

Chronic Arthritis Treatment

"Certain joint cases, rebellious to all other treatment, can be arrested by proper diet combined with Colonic Lavage.

Daily simple enema followed by high colonic lavage with about 1 ½ quarts normal saline solution, until washings return fairly clear.

Adapt diet to individual caloric needs and with constant regard to weight." - Pemberton, in "Monthly Cyclopedia and Medical Bulletin", 1913.

"Many patients with Arthritis are completely relieved by preventing the absorption of substances from the large intestine by Colonic Irrigation, and regulation of the diet." - Dr Charles Clyde Sutter, MD in "New York Medical Journal", 24 February 1912.

Typhoid Fever

The physiologic treatment of typhoid fever is summarized by Dabney as follows:

1. Clean intestines by mild cathartic.
2. Stimulate the vasomotors by the regular application of cold water with constant friction.
3. Colonic flushings.
4. Abundance of cool water to drink.
5. Clean sheets, clean gown daily.
6. Sunlight and air in abundance.
7. Spare and readily assimilable diet at long intervals.
8. Eternal vigilance for complications.
9. Careful study of pulse and temperature.
10. Never give any remedy that increases vasomotor paresis; the coal-tar series in particular are to be avoided.
11. Avoid the use of all stimulants as a routine practice.

There are times when we may need stimulants badly, but the average cases, if properly treated, seldom need them.

The use of digitalis, though endorsed by many good men, I deem unphysiologic, and at times positively dangerous in this disease. - Virginia Medical Semi-Monthly." - in "JAMA", 16 June 1900.

Note on Coal Tar: Coal tar is a thick dark liquid which is a by-product of the production of coke and coal gas from coal. Various phenolic coal tar derivatives have analgesic (pain-killer) properties.

These included acetanilide, phenacetin, and paracetamol (acetaminophen). Paracetamol is the only coal-tar derived analgesic still in use today.

Treatment of Pernicious Anaemia

"Colonic Lavage is more successful, and daily, copious, high enemas have seemed to me, in several instances, to be the measure which has finally arrested a relapse and led to the establishment of a remission." *- Dr Ralph C. Larrabee, MD, The Boston Medical and Surgical Journal, 19 April 1917.*

Vomiting of Pregnancy

"Treatment: Early in pregnancy the urine should receive special study, for which purpose "24 hour specimens" should be examined frequently.

With the decline of urinary solids the rise in total acidity and the increase of ammonia, there will develop noticeable symptoms of intoxication previous to the onset of vomiting.

Upon the appearance of the symptoms of renal insufficiency, the diet should be restricted, animal proteids and other foods rich in purin bodies should be excluded.

Purgatives, Colonic Irrigation and cabinet bath are indicated.

The acidosis may be relieved by the repeated introduction per rectum of a solution of sodium bicarbonate 8 gm. (3ii) in 500 c.c. (Oi) of water.

The patient should be given complete rest in a shaded room with special attention to ventilation." - Dr Charles G. Stockton, MD in "Diseases of the Stomach and Their Relation to Other Disease", 1914.

Rheumatism, Arthritic Conditions

"A woman, aged 54 years, whose foot had become almost ankylosed by uratic deposits about the joints, also left knee was painful on motion and pressure, with swelling and crepitation. In 2 weeks, with this compound, combined with salt baths and colonic flushing, with graded exercise, there were gratifying results. In 6 weeks much of the deposits have been absorbed, with increased articulation. In 2 months the major degree" of flexibility of the foot had returned." - Dr L. Ott, MD in "Rheumatism. Arthritic Conditions and an Effective Remedy", American Physician, 1922.

Colonic Irrigations, Enemata

"Personal experience with washing out the bowel with water, alone or with chemical substances added, or with oil, has been satisfactory.

Cardiopaths especially need to have the bowel freed from intestinal toxics; sufferers from renal disease even more urgently.

There are better ways of restoring normal defecation, but enemata serve a useful purpose in emergencies.

The one particular value of colon irrigations I have not seen noted is the remarkably prompt and efficient diuresis they induce.

As to the supposedly hurtful effects of Colon Irrigations and enemata, my personal experiences are negative.

Purgative medicines, especially the more irritating ones, even the salines, are more pernicious. The ancient writers (the Egyptians) speak well of enemata. There must be some peculiar value in washing out the bowel not yet explained.

I learned clinically that Colon Irrigations exert a very valuable effect on Arthritic disorders, especially Arthritis Deformans.

My own use of the remedy is for the purpose of:

1. Cleansing the bowel, especially of putrefactive products which accumulate.
2. To stimulate impaired peristalsis, or to soothe local irritations, or to relax spasm.
3. To act as a prompt diuretic.

Colon Irrigations of plain water usually suffice, at a temperature of about 24° or even 16° C, when prompt evacuation is desired. At the temperature of the body little or no response is elicited, and the water remains in the bowel indefinitely, much of it being absorbed - desirable for diuresis.

As to salt (sodium chloride) being objectionable, the question seems unsettled. The Murphy method has much to commend it in a variety of conditions extraneous to this discussion. The chloride of sodium does not seem to be proved of any special harm, even in conditions of nephritis.

Martin H. Fisher gives good reasons for his recommendation of the use of alkalies (sodium chloride and sodium carbonate) in conditions of nephritis, upon the ground that the morbid state of the kidney is due to the content of excessive acids.

Not only does Colonic Irrigation, rightly administered, effect a clearing of hardened faeces, mucus, and detritus far more perfectly than does any laxative, but in certain states of diarrhoea it produces a quieting effect, removes irritating substances, and checks the absorption of toxics.

To clear an overloaded bowel of impaired motor-tone it is wise for the physician himself to administer the enema, at least on 2 or 3 occasions; later a nurse or member of the family may officiate.

Position is important. The knee-breast posture is the best; or lying on the left side at first until half the amount of water has been introduced, then changing to the right side.

The fountain syringe should be elevated enough to get an adequate pressure - 3 to 4 feet.

The fluid should be slowly introduced. If colic or "bearing-down" pains occur, the tube should be compressed till the sensation passes; then proceed till 1 litre or 1.5 litre are introduced.

If motor-tone is lost, or the impulse to defecate is weak, the addition of massage to the abdomen is of great use.

By lifting the abdominal contents from the lower quadrants, gently compressing and relaxing, the interior is kneaded, the reflex of contraction stimulated.

Ordinarily it is well for the patient to sit quiet after injection until the impulse to go to stool is strong or irresistible. It is often enough to use only a 250ml of cool water (16° C) by a "baby syringe" to stimulate an impulse to void faeces.

Full irrigations are needed only 2 or 3 times a week, lengthening the intervals to 2 or 3 times a month; meanwhile employing other devices to cultivate the habit-impulse, such as posture, along with movements imitating those of primitive man or four-footed animals, walking on "all-fours" and hopping about, stretching while recumbent or sitting on the floor.

Oil irrigations, after the manner of Kussmaul, are far better to overcome constipation." - Dr J. Madison Taylor, MD, in "International Clinics", 1914.

Influenza as a Primary Edema of the Respiratory Mucous Membranes and Adnexa

"Whenever the infecting organism of influenza implants itself up on the respiratory tract there will be a definite objective edema, as is always present on the uvula and fauces at the initial onset of the disease. Pathologically, large amounts of fluid are present in the lungs and they present an entirely different picture from that of broncho-pneumonia.

There is a congealed area of protoplasmic distended endothelial cells, which is called congelatinous pneumonia.

Osmosis is a definite accepted phenomenon, and the response of the organism to changes in the osmotic pressure has been clinically demonstrated.

Bleeding, the administration of immune or non-specific serum, glucose injections, colonic irrigation, diaphoresis, menstruation, all serve to remove fluids; they are agents of dehydration, thereby increasing intra-arterial osmotic tension.

Therefore, any treatment which brings about dehydration and causes blood concentration will, by osmosis, remove the fluid from the edematous protoplasmic cells of the lung tissue, brain or gastro-intestinal tract. Therapy directed to this end has proved a positive means of treating this type of infection." - Dr I. M. Brenner, MD in "Influenza as a Primary Edema of the Respiratory Mucous Membranes and Adnexa", New York Medical Journal, 7 December, 1921.

Infantile Edema

"Treatment: The exhibition of suitable cathartics, combined with judicious Colonic Irrigation, might be useful in ridding the intestinal tract of the toxins that are presumably the cause of the condition in some cases." - Dr D. J. Milton Miller, MD, Associate Physician to the Children's Hospital of Philadelphia, in "Remarks on the Edemas Occurring without Albuminuria in Infancy", Journal of the Medical Society of New Jersey, October 1911.

Therapeutics of Acute Insanity

"Daniel R. Brower says insanity is a profound error in general metabolism. In considering the therapeutics of acute insanity, we must ever be mindful of the necessity of attention to the general constitutional state of the patient.

Rheumatism, gout, tuberculosis, and syphilis require special consideration.

Special attention must also be given to elimination by the bowels and kidneys. Intestinal fermentation, when present, must be diminished by intestinal antiseptics. Disorder of the gastrointestinal tract is one of the most common errors in these cases. Colonic impaction is common, and is frequently overlooked, and its relief by flushing resorted to early, will often change the whole aspect of the case." - in "Medical Record", 30 September 1905.

Nervousness

"The most frequent nervous symptoms that gynecological patients wish to be relieved of are their nervous instability "nervousness", headache, backache and other neuralgias, and insomnia.

The nervous symptoms generally arise from imperfect capillary circulation in some part of the nervous centers, more often the spinal cord, and are often associated with

deficient excretion from the skin, kidneys, or bowels, or defective cardiac action.

In considering the nervous symptoms, the condition and improvement of secretion and excretion first demand attention.

The best means to rely on to empty a loaded colon has, in my experience, been colonic flushings.

They should be used daily, as long as dark faeces are voided, once or twice a week when the discharges become yellow.

These flushings have been called "liver washers", because, if properly given, a large part of the water is absorbed from the intestine, taken up by the portal circulation, and passed through the liver.

A more or less congested liver is always present in these cases. The patient in the knee-chest position receives from two to 3 litres of water as hot as can be borne, either soapsuds, or a physiological salt solution.

As the colon becomes distended, the scybalous masses usually separate from the wall of the loculi, and fall into the lumen of the bowel, but if this does not readily occur gentle kneading of the bowel after it is filled with water will help to dislodge them.

The specialist who sees many cases of diseases of women realizes the very great importance of having a careful abdominal examination precede the pelvic one.

Many cases show varying degrees of faecal retention

In her thankfulness at escaping from the dreaded operation, she was willing to follow the directions, which were, colonic flushings daily, laxatives, bitter tonics.

In a week she returned, smiling and unsupported, and happy to have lost her tumour. Examination confirmed its entire disappearance.

I believe autoinfection from renal, intestinal, or cutaneous insufficiency, to be of supreme importance in these cases.

It is well recognized by neurologists as an etiological factor in their specialty, and as a very important point in

considering the nervous symptoms of gynecological cases it is not to be lightly passed by.

No one symptom is reported to us so frequently as occipital headache. It will be found frequently in conjunction with a weak heart, the most common cause of which is the poison absorbed from intestinal decomposition.

> *"In the light of modern pathology, inflammation of the uterine mucosa becomes a subject of vital importance, as it is the starting point of nearly all the inflammatory lesions of the pelvic organs." - W. E. Ashton*

As the uterus and appendages sink in the pelvis they usually follow the curve of the sacral canal and become retroposed.

The pelvic circulation is interfered with by the descent and displacement.

The veins would need to empty themselves uphill, which they are little disposed to do.

They become tortuous and distended, and the pelvic organs are fed by dammed-back venous blood.

The increased weight and displacement lets the organs interfere more or less mechanically with the action of the rectum, allowing faecal retention. The crowded bowel, in turn, by pressing forward and downward, increases the displacement of the uterus and appendages.

The fluid part of the retained faecal matter becomes absorbed into the pelvic circulation, making a blood that will take little part in any nutritive changes that are attempted.

The dusky red look of the tissues must be changed to a brighter colouring, and, until we establish a clean arterial pelvic circulation in place of the dirty venous one, it is useless to expect much from intrauterine irrigation.

Diet, exercise, and laxatives can do much, but better and more far-reaching results will be obtained if with them are combined colonic flushings.

Since they not only empty the bowel more perfectly, but

also when part of the water is absorbed, they flush the liver and kidneys, organs always more or less congested in these cases." - Dr Sarah J. McNutt, MD in "Notes on Non-Operative Gynecology, Medical Record, 11 November 1905.

"Case III. R. I., reported 28 May 1898; female, age 40 years; Hebrew; 5 children living, 3 dead; complained of dull vertex headache, periodic about once in 3 months, lasting several days, accompanied by insomnia; no rheumatism; no other pains complained of; bowels said to be regular; urine high-colored, contained indican in excess; appetite fitful. She is a plethoric woman, heart is feeble; however, no organic lesions can be found excepting great relaxation of the abdomen and dilatation of the intestinal tract and fermenting contents. The use of magnesium sulphate to thorough cleansing of the intestinal tract, with occasional use of acetanilid, caffeine and camphor monobromate as a nerve depressant, together with massage of the abdomen and restricted diet, and occasionally High Flushings of the colon with lime-water solution, produced immediate permanent improvement." - Dr F. Savary Pearce, MD in "The Gastrointestinal Tract in Nervous Disease", Boston Medical and Surgical Journal, 8 March 1900.

Restriction of Fluids in Nephritis

"Strauss (Berl. Klin. Woch., 1908, xxi, 998) does not reject the opinions of Oertel and of von Noorden that large amounts of fluid increase the work of the heart in cases of cardiac insufficiency due to cardiac disease.

However, he believes that other equally important factors exist in cases of cardiac insufficiency due to disease of the kidneys.

He thinks that an increased amount of fluid is necessary for the removal of the poisonous substances and that their

removal will more quickly lighten the work of the heart.

He could not determine an increase of the blood pressure when large quantities of fluid were used.

His observations on the urine and blood serum and certain animal experiments did show a diminution in the excretion of the poisonous products of metabolism when the amount of fluid was diminished.

He, therefore, thinks it absolutely necessary to increase the amount of the fluids, even if an overburdening of the heart is a result.

Rest in bed and digitalis should be used to combat this tendency to cardiac weakness. If the heart weakness is marked, Strauss advocates moderate amounts of fluid given in small frequent portions at fixed intervals.

Strauss also believes that anasarca in nephritis is a compensatory measure, since the fluid may dilute the retained poisons.

If increased fluids are given, the anasarca will disappear in many cases. On the other hand, the anasarca may increase, and then the removal of the fluid by aspiration results in the withdrawal of both fluid and poisonous bodies.

If uremic symptoms occur Strauss increases the amount of fluid.

Slow, rectal irrigations are of great service (drop method of Wernitz), though he warns of the possible damage to the kidneys from the use of sodium chloride solution." - in "The American Journal of Medical Sciences", 1909.

Care of the Colon

"During the period of active elimination, it is absolutely necessary to free the lower bowel of old accumulations as well as the waste material that is filtering out of the blood and lymph.

This finds its way, principally by the depurating function of the liver, into the intestinal tract.

The presence of toxic material gives rise to many symptoms such as:

1. Headache
2. Backache
3. Feelings of Fatigue
4. Nausea
5. Nervousness
6. Irritability, and so forth

A copious Enema should be used. Two quarts of warm water, in which has been dissolved **one level tablespoonful of salt,** will ordinarily prove effective.

This should be taken in the knee-chest position by those who are not physically disabled.

In certain forms of colitis, High Colon or other types of Irrigation may be indicated." - Dr George S. Weger, MD, in "Health Lessons", Weger Health School, 1931.

"What Is Constipation?"

"The answer may be defined in several ways, but for our purpose we will define it as any deviation from the normal bowel movement that results in defective and untimely elimination of the bowel excreta.

There is possibly no single functional disturbance of the system that brings greater discomfort and diseased action than constipation. One of the functions of the bowels is to collect and transmit the residue left in the bowel after digestion is completed.

Unless this important function is performed normally, and this effete matter promptly eliminated from the system, we get as a result reabsorption of toxic substances present. These toxic substances poison the blood, and are the distinct cause of many and varied remote infectious diseases too numerous to mention." - in "The American Practitioner and News", 1908.

Relation of the Joints to the Gastrointestinal Tract

"The following diseases show such a relationship:

Fecal Retention - Marshall reports a case of Arthritis and Psoriasis in a man who had no digestive symptoms except occasional slight abdominal pains at night.

Colonic Irrigations were given and at the end of 8 days an enormous accumulation of faecal material was expelled.

This resulted in complete recovery from the Arthritis and the Skin Lesions." - Dr Charles Clyde Sutter, MD in "New York Medical Journal", 24 February 1912.

Chapter 6

Concerning the Treatment of Fevers

Restoration of the Secretions

"It is exceedingly important in a practical point of view, ever to bear in mind the method invariably adopted by nature to cure a fever, which is the restoration of the secretions, and in most cases it is by sweat or perspiration.

Without this knowledge, there will be error in practice.

But when a practitioner is well apprised of this fact, he will at once know what indications to fulfil; in other words, what course of treatment to institute.

Common Treatment

The principal and almost only remedies (if such they may be called) resorted to by physicians in this day (1833), are Mercury, Salts, Bleeding, and Blistering.

I shall not consume time to descant on the impropriety and injurious effects of such practice.

This has been, and will be further exemplified in other parts of this work.

It is sufficient here to observe, that instead of such treatment proving beneficial, by aiding nature to overcome the disease, it counteracts her salutary efforts, and either destroys the patient, endangers his life, or protracts his complaint; and should his constitution be sufficiently vigorous to withstand the combined influence of these "Herculean remedies", or, in other words, should the patient recover in spite of them and the violence of the disease, the subsequent effects injure or ruin his health.

The practice is certainly absurd and irrational, and I ask, is it not preposterous in the extreme, and can it be supported by arguments, reason, experience, or facts?

When a person is attacked with a fever, the whole sanguiferous system is stimulated or aroused to throw off or cast out the enemy, and she invariably points, as we before stated, to certain doors, outlets, or excretions of the system as the only natural and proper passages, through which such enemy must be driven from the system; and it is the province of the physician to aid her in this wise and well established effort, and intention; but when such means are made use of, instead of rendering her the necessary assistance, her powers and energies are entirely crushed, weakened, or diminished.

1. First, by bleeding.
2. Second, by administering a poisonous mineral, mercury, and thereby corrupting the fluids and inducing another dangerous disease, perhaps, worse than the first.

I am satisfied that mercury and bleeding in febrile, as well as other diseases, brings on a contaminated state of the blood, and dangerous, if not fatal debility.

Reformed Practice

General Indications of Cure

Restore the Suppressed Evacuations, or the Secretions and Excretions.

This will remove the offending, or irritating cause, and when this is removed the effect, or in other words the fever, must necessarily cease.

In fulfilling this one indication, consists the whole secret of curing febrile diseases.

Particular Indications of Cure:

1. Moderate the violence of arterial excitement
2. Obviate local inflammation and congestion
3. Support the powers of the system
4. Relieve urgent symptoms

The necessity of fulfilling all these indications must be borne in mind by the practitioner.

In every modification of fever, it becomes his duty to render himself an assistant of nature.

What she endeavours in the commencement of the disease to accomplish, is, to evacuate the deleterious agents by the proper passages.

The whole business of art, therefore, is to assist her in these 2 efforts of:

1. Secretion, and
2. Excretion of the morbific matter

The manner of effecting this, in every particular species of fever, is given under their respective heads; but as we are treating of fever in general, it may be proper to give the general principles of treating them as fevers, without entering into the various subdivisions or modifications.

The remedies which are to be given to assist the secretion and preparation of the morbid and diseased matter, are sudorific, diluting drinks and medicines, such as produce a determination to the surface, evacuate and give a healthy tone to the stomach and bowels, kidneys, etc.

There are few preparations which have a greater tendency to diminish heat; to attenuate viscid humours; remove obstructions; promote perspiration; increase the quantity of urine, than drinking freely of water, or any other weak diluting liquor, of which it is the basis.

The necessity of such drinks or liquors, is plainly indicated by the dry tongue, parched skin, and the burning heat, as well as by the extreme thirst of the patient.

Many refrigerant or cooling liquids, suitable to be drank in a fever, may be prepared from fruits; as from tamarine jelly (made similar to currant, or any other jelly) lemons, oranges, apples, etc.

Also infusions or teas of balm, sage, catnip and other medicinal plants, are exceedingly valuable, both on account

of the dilutent properties of the water, and the cooling effects of the plants themselves. Buttermilk moderately acid, and diluted with water, has also been found very useful.

Secretions and Excretions

I have already stated, that the great secret of curing fever, is the restoration of the secretions and excretions; the violence of the disease, is just in proportion to their torpor or obstruction, and as soon as they are restored, and perform their offices, the whole catalogue of symptoms attendant on fever, at once vanish, like fire before the watery element.

When they are restored to their healthy action, how quick does convalescence take place.

The gastric, the alvine, the urinary and perspiratory discharges and functions become natural; the heat of the system equalised; the pulse falls to its natural standard, and with this decline of the febrile commotion, there is a correspondent, healthy action in every organ; the appetite is improved, and strength and health is re-established.

The Stomach

When we reflect upon the extensive influence of the stomach over the system, and particularly the skin, we shall be able more readily to appreciate the utility of emetics in febrile diseases.

It is by reason of this intimate relation and connection between the stomach and every part of the system, that the administration of an emetic, proves so very effectual.

It not only cleanses the stomach of any bilious, feculent, irritating, or any morbific matter; but it proves eminently beneficial by the general relaxation which follows it, approaching sometimes almost to fainting, and which extends to the skin, and produces perspiration.

They may, as a general rule, be given where there is much nausea, and where there is no peculiarity of constitution to forbid. They are very serviceable in bilious, intermitting, and remitting fevers.

An emetic given in the commencement of a fever, will sometimes remove it, at once.

Even when the stomach has been thoroughly cleansed, the exhibition of an emetic, may be advantageously given in consequence of the shock and stimulating effect given to the stomach, liver, and neighbouring organs. Intermittent fever has sometimes been cured by a single emetic.

In some diseases there appears to be such a morbid accumulation, that other medicines will not act upon the living fibre, and therefore this class of medicines, becomes important as a preparatory step in the treatment of fever.

In typhus, and other modifications of fever, emetics may be beneficially administered.

> *"In the typhoid and typhus pneumonica, that occasioned such lamentable mortality, of late years, throughout the United States, emetics, judiciously employed, were more beneficial, than any other remedy. It was indeed a novel spectacle to those who were accustomed to unsheath the lancet in almost every thoracic affection, to behold a pneumonic fever, perhaps an haemoptoe, removed by the incantation of a single emetic."- Potter*

> *"Emetics, exhibited early in fevers, (billious particularly) operating well, will frequently check an attack, and in the more advanced stages, judiciously repeated, we shall find by it the pulse reduced, pain in the head relieved, sickness of the stomach appeased, temperature of the surface lowered, with perspiration, which restores quietness, and hastens a critical solution. This precept is strongly applicable to the billious fevers of our own climate, and especially as they occur in the southern states, where they prove exceedingly intractable under any other mode of treatment."- Dr. Chapman*

Sydenham has the following judicious remarks on the efficacy of emetics:

"When I have happened, sometimes carefully to examine the matter thrown up by vomit, and found it neither considerable in bulk, nor of any remarkable bad quality. I have been surprised how it should happen that the patient should be so much relieved thereby for as soon as the operation is over, the several symptoms, viz. the nausea, anxiety, restlessness, deep sighing, blackness of the tongue, etc. usually abated and went off, so as to leave the remainder of the disease tolerable." - Dr Sydenham

Wallace, commenting on this passage, thus observes:

"Sydenham was not aware of the sympathetic affections which take place in the constitution, nor knew that an extremely small portion of morbid matter could produce effects so sudden and surprising from a local action, so as to derange the whole system." - Dr Wallace

The Bowels

The intimate relation which exists between the whole of the alimentary tube or canal, the skin, and other parts of the animal economy, points out the necessity of promoting in them a healthy action.

Purgatives, therefore, have a decided good effect in fever.

The preternatural excitement of the blood-vessels is sensibly diminished by the exhibition of purgatives.

This effect takes place by removing the feculent matter which they contain, and by stimulating the exhalent vessels of the mucus membrane of the intestines, causing them to pour out copious effusions from the blood, or circulating mass.

Their importance must be seen in a striking view, when the length of the intestines is considered, which is about 9 metres, and also their office.

There is an immense number of vessels, opening into them through their whole extent, and from which there is

poured out a vast quantity of feculent matter; and when there is a preternatural stimulus given to the intestines by purgatives, there is a sympathetic affection of the whole system; the circulation becomes more equal, the pulse is lowered, pain in the head, and other parts diminished, or removed, and there is a sensible improvement.

Dr. Dewies has the following excellent remarks on the utility of purgatives in febrile diseases:

"**In fevers of almost every description, purging is not only useful, but in many, is indispensable.**

There exists constantly a want of equilibrium in the circulatory system whenever the body is attacked with fever, and the determination for the most part, is, to the brain, the liver, the spleen, or to the lungs; and few remedies are found so effectual in restoring this want of balance, as well chosen, and properly adapted aperients (laxative).

Besides the determinations just mentioned, faecal matter in the bowels, is constantly accumulating which it is of much consequence to remove.

Occasionally there will be a redundancy of bile; at other times a deficiency; and we are obliged sometimes to remove the one, or to solicit the other, and both of these ends are answered by the proper choice, and exhibition of catharitics.

Purges, besides cleansing the bowels of offensive matter, cause to be discharged into the bowels a considerable quantity of the fluids natural to these parts, and thus serve the double purpose of removing their faecal contents, as well as evacuating from the general system.

For effecting these purposes, however, some cathartics are much more valuable than others, consequently there is a choice.

We shall not enter here more fully than we have into a detail of them.

Designing in the treatment of each disease, as they may be necessary to point out those that are proper.

The management of catharitics must be regulated, first, by the state of the system in general, and of the bowels in

particular; they are indicated when the system maintains its general vigour, and where the bowels are still loaded, or not sufficiently cleansed - the pulse will direct in the one instance, and the appearance of the evacuations in the other.

"There is a popular prejudice against purging, that we should be glad to remove, viz.; that they are "very weakening."

Purging, like every other evacuation may be carried too far; and then with strict propriety it may be said to be "very weakening"; but this is only the abuse or mal-administration of a remedy.

In many instances of fever, the patient is so far from being weakened by being purged, that he is absolutely strengthened by it.

This has been repeatedly exemplified in Yellow Fever.

We have known patients faint, when labouring under this disease, upon being merely put in an upright position; yet after a free purging, and other evacuations, they have been able to get out of bed, and walk the floor.

Now were these remedies directly weakening, the contrary of this should have happened.

And again it is frequently said, when these medicines are about to be administered, that they cannot be necessary, for there is nothing inside of the patient to bring away; and as a proof of this, they will declare "the patient has eaten nothing for a number of days".

This popular language and feeling must be disregarded, if we do not mean to injure the patient, especially where attention has been paid to the quantity and nature of the discharges; and where we are convinced, that much remains to be removed.

For we have frequently seen after the purging process has been continued for a considerable time, and where the friends of the patient were convinced there was "nothing inside", large, hard, and fetid evacuations have succeeded those "water stools", and the patient has been almost immediately restored to health."

We could say much upon this important subject, but our

limits will not permit. Attention should be paid to the time when they are to be administered - they should not be given, (unless it would be the loss of precious time to procrastinate), so as to interfere with the night's rest of the patient; nor should they be used, so that they shall interfere with the “sweating period of fever”.

Great care is necessary to guard the patient against the injurious effects of cold, while under the operation of physic.

If he is able to rise from his bed, a cloak or blanket should be thrown around him.

Repetition of Purgatives

Purgatives may be repeated daily, and in the morning before any nourishment is taken, in those fevers which ordinarily run their course in a short time; such as inflammatory and yellow fever.

In those of longer duration, such as typhus and other continued fevers, they may be given every other morning, or once in three days may be sufficient, (according to the state of the disease, and other circumstances), provided no particular symptoms, or state of the system contra-indicate.

Moderate doses of physic in general are sufficient, except in the onset or commencement of a fever, when a brisk purgative may be administered.

The Pores, or Capillary System

It appears that febrile diseases, in their very nature and essence, consist in a derangement of the skin or capillary system, and that no means will subdue a fever, until these functions are restored.

We must be convinced of the necessity of this, from the extensive surface of the skin; its connection with the stomach and sanguiferous system, and its important office in casting off superfluous and noxious matter.

It is calculated that 2/3 of what is taken into the system, is evaporated by sensible or insensible perspiration.

Hence it will be seen what mischief will arise from a

retention of this perspirable matter, and what benefit will also follow by restoring this secretion.

Another great benefit to be derived from perspiration, is the evaporation that constantly takes place on the surface, which keeps the skin cool and soft.

Diaphoretic, or sudorific medicine, then, reduces general excitement, and is one excellent method of depleting the system.

Evacuations from the skin, invariably lessen the force of the heart and arteries, by taking from the circulation every agent which is useless or injurious, and by relaxing the constriction of the surface, they remove congestions by a determination of blood to the extreme vessels; and in a word, lay the axe, as it were, at the root of the disease.

No sooner does perspiration break out in a febrile patient, than there is a mitigation of all the symptoms; the dry, pale, and husky state of the skin is removed; the balance in the circulation is restored, and very often a violent attack of fever is cut short as soon as free sweating takes place.

The object then should be immediately to restore perspiration, and continue it throughout the course of the fever; not violent sweating, but moderate perspiration, or a gentle moisture of the skin.

It is by this moisture, or the dry and parched state of the skin, that we form a favourable or unfavourable opinion of the fever.

If natural perspiration cannot be promoted, we predict danger.

On the contrary, if it can be promoted and kept up, we predict a favourable issue.

Indeed on this depends the basis of our prognosis.

Sudorific or sweating medicine must therefore be given, but not too freely, especially after a few first days from the accession, or the attack.

If those medicines, which are very stimulating, will not fulfil this indication, or will not answer the purpose, then others must be given; such as will have the desired effect without increasing the heat of the body, as Virginia snake-root, sage, lemon-balm, catnip, amaranthus, etc.

The following refrigerant or cooling drink I have administered with excellent effect:

Take the juice of a lemon. Cream of tartar, supertartrate of potask, one teaspoonful. Add a pint of water. Whenever the patient is thirsty, let it be freely drank. I recently cured a violent continued fever by giving this drink alone, and bathing the surface with weak ley water about 3 times a-day.

The effect was almost immediate, and the fever removed in a very short time.

The nature of the preparation, although simple, will convince the reader that it possesses very cooling or anti-febrile properties. It promotes the discharge of urine, is laxative, antiseptic, and refrigerant.

The Kidneys

When the kidneys cease to perform their offices, or do it imperfectly, the urine is scanty, or is much diminished.

This fluid is retained carried into the circulation, and must prove a source of irritation; and hence the necessity of restoring the secretion of them.

Diuretic medicines, therefore, or such as promote a discharge of urine must be administered, and it will be found that as the urine begins to flow freely, there is diminished arterial excitement.

It is the case, that fevers and other inflammatory diseases are brought to a favourable termination by a spontaneous discharge of this fluid.

An infusion of spearmint possesses a remarkable diuretic property, and it may be drank freely.

It not only acts upon the kidneys, but likewise upon the skin, and often allays nausea and irritability of the stomach.

The Lungs

The lungs is an organ to which strict attention must be paid. It is the primum mobile, or main spring of the system; its office being to supply it with the vital principle.

If this is withheld, or if they absorb impure air, the fever is exasperated. It is therefore necessary to place the patient in a large, well ventilated room.

The method of suppressing fevers by this means, was practised by the ancients: they exposed their patients to cold air, and gave them cold water to drink.

Fresh air is very salutary to a person in a fever, it removes his anxiety, cools the blood, revives the spirits, and is in every view beneficial.

There ought, therefore, to be a constant stream of fresh air in his chamber, so as to keep it moderately cool.

Air that has been repeatedly breathed, when the blood is inflamed, or the humours are in a putrid state, becomes unfit for respiration, and acquires a noxious quality.

The lungs also become affected by sympathy, and where this is the case, irritation and cough succeed.

Under such circumstances, expectorants must be given.

Local Treatment

Attention must be paid to particular symptoms, such as soreness of the throat, pain in the head or other parts, from congestion or an unusual quantity of blood thrown upon some other organ; for sickness at the stomach, etc.

The Surface

A tenacious, viscid, perspirable matter, is deposited upon the surface of the body in febrile diseases, which dries upon it, and becomes an additional mean of keeping the pores closed or obstructed.

The usual moisture being gone, as before mentioned, a preternatural degree of heat is generated, which creates great distress and protracts the fever.

This state of the system, obviously points out the propriety and necessity of bathing the surface very frequently.

It removes every thing which obstructs perspiration externally, by relaxing the cutaneous vessels, and the

evaporation which follows, diminishes the temperature of the body surprisingly.

Nothing is better for this purpose than warm water to which ley has been added.

Sir John Chardin

"According to Sir John Chardin, the celebrated traveller, the Persian physicians, devoted followers of the Galenical school, had frequent recourse to bathing in febrile diseases.

His own case is a remarkable example of their practice in particular.

He had with him a French surgeon who gave him every assistance in his power during the violent remittent fever with which Sir John was attacked; but on arriving at Laar they concluded to send for the governor's physician.

The latter on his arrival stated the nature of the disease (the fever of Bender), and, contrary to the gloomy prognostics of Sir John and his professional friend, promised a speedy cure.

Chardin called out, "I am dying of heat."

"I know it", said he, "but you shall soon be cooled."

"As in the extreme heat of my fever, I thought nothing could be so delicious as drinking snow-water, I sent to beg a little snow of the governor, who sent me some about eleven o'clock; and as I then had the most raging thirst, I drank with more pleasure and avidity than I had ever done in my life.

My apothecary was always near me. It was he who administered the liquid to me. He filled a large vase with barley-water and willow-water, put a large lump of snow into it, and, when it was half melted, gave me the vessel, and desired me to drink my fill.

The pleasure I had in drinking was the greater, because the liquid was very agreeable to the taste, and I took it by the physician's desire.

I was lying on the ground floor of the house, in a cool room, my bed stretched on the ground.

Every hour the floor was watered, so that it might be said

to have been quite covered with water.

But nothing could allay the heat of my malignant fever, which seemed to be irritated rather than abated by so many cooling remedies.

My apothecary then ordered my bed to be taken up, saying it heated me; and he spread a thin mat in its place, upon which he made me lie down in my shirt, without any other coverings, and then made two men come and fan me.

But this was of no avail, the heat continued as oppressive as ever.

The apothecary, who paid me the most constant attention, then procured two buckets of cold water, and having placed me on a chair, on which I was supported by two men, poured the water over my body little by little, from the haunches downwards, and then taking a large bottle of rose-water, bathed, in the same manner, my head, face, arms, and breast.

I blessed, in my heart, the Persian practice of medicine, which treated sick persons so voluptuously!

But our French surgeon, who was always by me, could not contain his indignation.

"The man is killing you, sir", said he to me in a compassionate tone.

"What! bathe you with cold water in the heat of a malignant fever, with a pint of emulsion, two pints of decoction, and a pound of confection in your belly, with I do not know how many draughts of snow-water. Depend upon it", added he, "that instead of being very soon without fever, as he has promised you, your death will be the end of the business".

"I do not know what will happen", answered I, "but at any rate I do not feel as if I were about to die, as you suppose. Indeed at that moment I felt the heat within me diminish, and my senses return; upon which my apothecary, having felt my pulse, said, "your fever is abating".

It went off from that time so quickly, that by 1 o'clock in the afternoon I was quite free from it, even in the opinion of the French surgeon.

He was quite astonished, and I was transported with joy.

After having offered up my devotions to God, as to the first cause of my recovery, I said to the apothecary, that to complete my happiness I must see my physician.

He will return, said he, by the time the medicines have operated.

I took them, as I have said, at 9 in the morning, and I had only since that time experienced a kind of heaviness, which swelled me up very much without griping me, so that I imagined they would have no effect upon me, and that their efficacy was exhausted in my continued sweating.

But in a quarter of an hour afterwards a looseness seized me, and lasted two whole hours, without any pain or uneasiness In the evening the physician came to see me, and I received him as a prophet, or as Esculapius himself.

He had learned from the apothecary how I had spent the day, and he ordered me a mess of rice boiled in water, with cinnamon and the bark of dried pomegranate pounded together, I had taken no nourishment whatever for 5 days.

On the 28th, when I awoke, I was a little feverish, on which account the physician, when he came to see me, ordered me an emulsion of the cold seeds (melon, cucumber, gourds, and pompions), and a dose of the confection, as the day before, recommending that I should eat raw cucumbers.

These remedies were given to me at 9 o'clock in the morning, and I did nothing all day but drink, most deliciously, willow-water, and barley-water, cooled with snow, eating raw cucumbers, water-melons and pears.

Verjuice (juice made by pressing unripe grapes, crab-apples or other sour fruit), in considerable quantity, was put into the mess which I took at noon and in the evening, to give it an agreeable taste, and it most wonderfully lessened my thirst. The next morning, the physician having found me still rather feverish, ordered me medicines similar to those I had taken on the 27th.

These purged me during the whole day with so much violence, that I had nearly sunk several times under the effects.

The night was still worse than the day, as I passed it in pain, with a violence increase of fever.

My physician found me in that state, and, as usual, filled me with consolation; for, after having felt my pulse attentively, he told me that he was going to give me some draughts that would carry of what fever remained, and deliver me from it entirely.

This certainly took place, but I do not know how he accomplished it.

I only know that about 9 o'clock in the morning I took two pints of emulsion, with a large dose of confection, as on the preceding days, and half an hour afterwards a julep (a refreshing drink flavoured with mint); after which I fell asleep, and when I awoke in the afternoon, my head was clear, I was without fever, perfectly tranquil, and, as I thought, entirely restored to health. I was so much transported with joy, that I could not find utterance to my feelings, relying on the word of my physician, whom I thought an oracle, that the fever would return no more.

On the morning of the 31st he confirmed his opinion, and ordered me to live 10 days together on chicken and rice, without anything else; at the end of which time he said I might live as usual.

I asked him how many days it would be before I could pursue my journey. He told me that two more days of repose would be sufficient, and that I might then set out on horseback.

He once more ordered me a great dose of emulssions and cordials, as before.

On the first of June he came to see me for the last time, saying that I was not any longer in need of his visits; that he had ordered the apothecary to bring me the materials of ten emulsions, and to teach my servant how to prepare them." - Sir John Chardin

On the 3rd of June, Sir John Chardin proceeded on his journey, and experienced no relapse; and on the 17th he reached Chiraz, in a convalescent state and still weak, but otherwise so well that he left of his medicines".

Dr James Currie

Dr Currie, very properly supposes that the fever under which Sir John Chardin suffered, was the bilious remittent fever.

The cold, it is to be observed, was applied in this case during the height of the paroxysm when the heat and thirst were the most urgent.

> *"The laxative medicines were no doubt of service in carrying of the morbid contents of the alimentary canal; but they seem to have been carried to excess on the 29 May, and to this circumstance the return of fever may be imputed. The bitter medicine was no doubt a decoction or infusion of some vegetable, in its qualities resembling the bark; and the cooling confection was certainly the celebrated mirthridate, a combination of opium and aromatics, well known over the eastern as well as the western world." - Dr. James Currie*

In Abyssinia, according to Bruce, the practice of using cold water, externally as well as by drink, is very general in the violent fevers of that country.

Remembering, however, the high heat of that region throughout the year, we must be aware that the temperature of the water is proportionally elevated, probably equal to 24 or even 26 degrees of Celsius. Savary tells us that the Egyptians pursue nearly a similar practice in their fevers.

> ***"In the revolutions of our science, the practice alluded to, seems to have been rejected, or lost sight of, for many centuries".*** *- Savary*

Nearly a hundred years ago, however, an attempt was made to revive it by a writer who entertained such extravagant notions of its efficacy in the inflammatory fevers, that he denominated cold water febrifugum magnum, or the great febrifuge.

Yet the remedy in no one of its applications gained much ground, antecedently to the appearance of the celebrated work of Currie, since which time its utility has been fully confirmed by the concurrent experience of many of the most distinguished practitioners in various sections of the world.

"This mode of treating disease has not been generally adopted in the United States, certainly not to the same extent as in Britain, and her colonial dependencies in the East and West Indies, which may, in part, be owing to our attachment to the lancet, and other directly depleting remedies, operating, to a certain degree, in a similar way.

Cold ablutions are sparingly used in our autumnal fevers, to allay heat of the skin, and ice is habitually applied in the inflammatory attacks of the head.

But in the European hospitals, nothing is more common than to see patients, in the early stage of typhus fever, placed under a shower bath, or to have water dashed upon them.

Nearly the same course was pursued in scarlatina, and in the whole of the complaints, in short, where a heated surface exists.

The effect, most commonly, was a free perspiration, followed, as is usual, by highly beneficial tendencies.

Yet in the exanthemata, the practice, to such extent, can hardly be justified from the danger of repelling the eruption.

Cases of death are reported from it, and I have seen it, in several instances, productive of mischief".

Bathing with cold water, in many stages and types of fever, is a very excellent remedy, yet I have proved that in most cases, tepid or warm water is preferable.

It is not followed by the sedative and debilitating effect that cold water sometimes is.

Again, bathing the surface is by far much better and much more convenient, than throwing or dashing it upon the patient.

It is almost if not quite impossible, to raise a very sick and exhausted person from his bed, and support him long enough to apply water in this manner.

But by applying it in the way I have recommended, the patient is very little disturbed, and it can be repeated as he

lays in bed, and that as often as it may be necessary.

I recollect attending a girl many years ago of typhus fever, where I ordered the nurse in connection with other means, to bathe the surface at night thoroughly with rain water mixed with ley. (1)

I called in the morning, and found that the skin was very dry, parched and shrunken, heat great.

I expressed my disappointment, and asked her if she had followed my directions.

She replied that she had: (a falsehood by the bye) I could not, however, account for the symptoms, for had never in all my practice, been deceived in regard to the happy effect of this process. I, however, directed the same medicine to be given through the day, and the surface to be bathed at night, as before directed.

In the morning, I again called, and found my patient just as anticipated the day previous, in a fine perspiration; skin cool; arterial excitement, and of course, the heat diminished, and all the symptoms manifestly better.

The woman or nurse then had the candour to acknowledge the deception she had used.

She said that she had not, as she before stated to me, bathed the surface the first night, as I directed it, from a supposition that it was too simple to do any good, but that the preceding night, she had strictly followed my directions, and had applied the liquid freely over the whole surface of the body; and the consequence was, as before intimated, a remarkable change for the better.

Thus we see from this circumstance, first, the folly and criminality of refusing to administer medicine, because it is apparently simple, and secondly, the reprehensible conduct of those nurses who pretend to be wiser than the physician. (2)

1. It is very necessary that ley should be added; first, Because the nature of the perspirable matter is such, being very greasy or oily, and being so tenacious and viscid, that it appears almost to cement or close the pores; or at any rate, it adheres so closely to the surface, that simple water will not

effectually remove it. Ley, by its cleansing, and purifying properties, completely removes it.

Secondly, It not only cleanses, but appears to soften the skin, and invites perspiration by its stimulating or relaxing nature. I have applied various liquids, such as spirits, vinegar, etc. But the skin is not left in the same state. Even pear-ash water will not leave the skin so soft and moist.

Besides it seems more caustic and heating in its effects. Ley should be used which has been well leached, as it appears to acquire new, or different properties by the oxygen which it imbibes from the atmosphere.Not only so, I am inclined to think, that the momentum of blood is diminished, by the sympathetic effect produced by stimulating the cuticular vessels of the sure face.

It certainly must effect the internal organs of the system directly, or indirectly, from the fact, that if one function is deranged or healthy, there is a correspondent effect in others.

2. The following circumstance in relation to this subject, will show how easily any improvement can be introduced when it is sanctioned, or supposed to be sanctioned by high authority. One of the graduates of our school on his way home to West New-Jersey, was taken ill of a fever in Philadelphia. He gave directions that the whole surface should be repeatedly bathed, which was attended with the most salutary effect.

Those who attended him, however, were not aware that he was a student of our school, and the treatment, therefore, was taken up by a physician near the city, who, by some means, had heard of the effects of it; and supposing that it was sanctioned by the medical faculty of Philadelphia, commenced the same process of bathing the surface with decided benefit, in every case of fever under his care.

Now had he known the source whence it originated, he probably would have rejected it because not sanctioned by different, or orthodox authority." - in "The American Practice of Medicine", 1833.

Treatment for Restlessness

"My method of treatment for restlessness is the same as that for high temperature, i.e., ice bag to the head, hot water bottle to the feet, tepid sponges and Hhigh Colonic Irrigations.

On the last named I rely particularly in cases of extreme restlessness and they have never failed to give results.

At the same time I am accomplishing two other objects referred to by the author, i.e., minimizing toxemia and securing elimination through the kidneys and bowels.

Neither can I agree with the recommendation of an initial dose of castor oil, except the child is suffering from diarrhoea, as I feel the constipation following the use of castor oil, after its first action has been secured, would in itself be a complication.

Balneotherapy and hydrotherapy, water within and water without, are my sheet anchors in the treatment of ,this disease in children, and it is my opinion, based on experience, that this form of treatment intelligently and persistently administered from the beginning will obviate the necessity of using nauseating cough mixtures, antipyretics and stimulants, thus saving the gastro-intestinal tract, on the condition of which, as the author states, recovery may depend, as well as minimize the frequency and severity of the complications so often encountered in this disease." - Dr H. Brooker Mills, MD in "The Pennsylvania Medical Journal, November 1918.

Dehydration of Tissues in Diarrhoea and Vomiting

"An experimental investigation on Diarrhoea, and Vomiting in children, published by Doctor Mellanby in "The Quarterly Journal of Medicine", April 1916, is referred to in a recent issue of "The Lancet".

Doctor Mellanby showed that:

1. If the body-fluids are below normal, the absorption of toxins from the intestine goes on at a maximum rate and the absorbed toxic substances have their full toxic action, and can not be made harmless by the tissues of the body.
2. Water in the intestine delays the absorption of toxic substances.
3. Magnesium sulphate, in a concentration of 2% or over, delays the absorption of toxic substances from the intestines.

These findings have an important bearing upon the treatment of diarrhoea and vomiting, not only in children, but, also in adults. In severe vomiting, it frequently is the custom to forbid the ingestion of all food, including water, despite the distressing thirst that these patients manifest.

If the symptoms are due to a bacillary infection of whatever nature, it is unavoidable that the withholding of fluid promotes the injury accruing from the disease and that the very thing we desire to prevent is encouraged, that is. the absorption of toxins and their deleterious action.

We all have held that in intestinal affections, barring certain mechanical conditions that preclude it, the free flushing of the digestive canal not only is a potent means to promote intestinal cleanness, but, also, that it enables the organism the better to take care of and to neutralize the toxins produced by the intestinal bacteria.

Mellanby's conclusions bear out our contentions, and confirm us in them.

Incidentally, his finding, that magnesium sulphate in a concentration of 2% or over delays the absorption of toxic substances from the intestine, encourages us in our favourite custom of ordering “saline laxative” for fever-patients, not alone for its laxative action, but, because it constitutes a cooling drink that not only is pleasant, but, has a distinct stimulating and curative action.

It is a source of satisfaction to find here an explanation of the favourable action of magnesium-sulphate solution that we observed times without number.

The season for intestinal disorders is at hand, and it may be well to keep in mind, in the treatment of all diarrhoeas, even those that are not dysenteric in their nature, that dehydration of tissues - which is distinctly unfavourable - should be energetically counteracted; that the intestines should be flushed freely, for the purpose of inhibiting the absorption and unfavourable action of bacterial toxins." - "The American Journal of Clinical Medicine", Vol. 25, 1918.

Some Colonic, Sigmoidal and Rectal Conditions

"The ascending and a portion of tranverse colon have to do with absorption of the fluids of the digestive tube.

The descending colon and sigmoid are concerned with storing faecal debris. There are changes in the intestinal wall of the descending colon, sigmoid and rectum which are due to the function of these parts. On account of the stagnation fermentation and putrefaction in the contained mass, toxins and bacteria, under conditions favourable to this process, pass through the mucosa into the wall of the bowel.

The result of this permeation of the wall of the intestine is an irritation which brings on a round cell infiltration of its layers.

This infiltration diminishes the elasticity of the viscus and by its slow but inevitable contraction diminishes its lumen.

This same process of round cell infiltration may attack the mesenteris of these various divisions of the bowel and cause thickening and contraction of them.

The main symptoms of this condition is prolonged and intractable constipation with all its morbid sequellae.

After fibrosis has occurred the affected area may be palpated, if the abdominal walls are relaxed.

It is needless to remark that all accessible viscera must be investigated and every other cause of the constipated state must be eliminated.

Treatment comes under the Hygienic, in which Diet and Colonic Lavage occupies a very prominent position.

Surgery must be invoked in the advanced cases when the fibrosis is marked.

Any part or all of the colon except the part concerned in the absorption of fluids may be removed.

Metchinkoff is a prominent advocate of the idea that the colon is the territory from which most of the poisons which destroy the body originate and that if man possessed no storehouse in which digestion debris may stagnate and putrefy he would be a much more physically perfect animal.

So that we may not hesitate to remove any portion of the large bowel no matter how extensive that portion may be, when it has already lost what little functional value it originally possessed." - Dr. Edwin A. Hamilton, MD, in "The Alabama Medical Journal", 1908.

"We must not forget the nervous system and whatever we do must be done with as little friction ns possible.
Irrigation of the bowels with normal salt solutions is frequently a good procedure. It seems to act partly as a stimulant and helps to relieve the toxemia." - Dr Hardee Johnston, MD, in "The Alabama Medical Journal", 1908.

Treatment of Chronic Prostatitis

"Constipation is generally a prominent symptom, and it is necessary to regulate the bowels, using saline cathartics, for their depleting action on the pelvic organs, which has some effect in relieving the congestion of the prostate.

However I have found in a large number of cases, after we are able to relieve the greater amount of the inflammation of the prostate by proper treatment, that the constipation is overcome to a great extent.

All sources of erotic excitement should be interdicted on account of their effect in inducing congestion of the prostate gland.

The diet should be composed of such articles that will not produce any inflammation of the prostate gland.

Alcoholic drinks should be withheld from the patient.

Sitz-baths of hot salt-water of from 10 to 15 minutes duration have an effect in improving the condition of the diseased organ.

Irrigation of the rectum with either hot or cold water, is often beneficial, and in patients with marked neurasthenia the alternate flow of a hot-and-cold irrigation through the rectum is useful.

The alternate flow can be arranged by filling two douche bags, one with hot and the other cold water, and attaching one and then the other to the rectal tube." - Dr Courtney W. Shropshire, MD, Genito-Urinary Surgeon Hillman Hospital, Birmingham, Alabama, in "The Alabama Medical Journal", 1908.

Warning on Acidosis Treatment

Use Small Enema Only

"**It has not been recognized that Laxatives, Cathartics or Large Enemas administered to patients with Acidosis may increase the severity of their symptoms to such an extent that they suddenly develop convulsions or coma or die from an overdose of virulent colonic toxins.**

Furthermore, they should know the reason why a Laxative, a Cathartic or a Large Enema will Increase Acidosis, and why Small Enemas will relieve it." - Dr Lawrence P. Crawford, MD in "New England Journal of Medicine", 17 September 1931.

Chapter 7

Treatment of the Abdominal Viscera Through the Colon

"**The colon is closely related anatomically to the abdominal viscera, enclosing within its embrace the mesenteric vessels, which play an important role in the regulation of the circulation and general metabolism of the body.**

The hepatic, splenic, and sigmoid flexures and the transverse colon are in intimate relation with the liver, duodenum, kidneys and pelvic organs, therefore, it is evident that it is possible to influence these viscera more or less by the application of heat, cold, electricity and other physical stimuli through the colon.

Close as the anatomic relationship is between the colon and the abdominal viscera, the physiologic relations may be said to be still more intimate.

This is evident from the serious disturbances that accompany diseases of the colon, and is clearly shown by general physiologic action resulting from certain therapeutic measures applied directly to the colon.

In discussing such treatment of the abdominal viscera by means of the colon, we may consider:

1. The direct effect of these therapeutic measures in removing pathologic conditions of the colon;
2. The effect of contiguity with other viscera;
3. The reflexes.

The most common treatment of the colon is to secure evacuation of retained contents, usually by some mechanical

means, such as the introduction of water into the lower bowel, which often has the effect of distending the rectum and sigmoid. This acts as an irritant, causing contraction, resulting in expulsion of the contents.

The entire colon is the seat of many diseased conditions, both of the mucous membrane, and of the muscle walls.

It is essential that a diagnosis of the location and extent of the pathologic conditions be determined before an attempt is made to apply therapeutic measures.

This becomes especially imperative when by means of more improved methods in the technic we are able to apply remedial measures directly to the mucous membrane and to the muscle walls - treatment which will be found unusually effective and valuable, owing probably to the favourable arrangement of the nervous mechanism, and the reflexes of the colon.

For Example:

The effect of high temperature, when applied directly to the mucous membrane of the colon by the introduction of water at relatively high temperatures, is

immediate and very marked in securing reflex stimulation of the vasomotor centres. The blood-pressure is thereby raised, the kidneys are stimulated, the hepatic function is increased, and leucocytosis is induced. The effects thus produced seem indeed to result in a general accelerated metabolism, oxidation and elimination; in short, the result is a general cell activity.

The Methods of Treatment Through the Colon

1. Hydrotherapy;
2. Hot and cold air treatment;
3. Mechanical or massage treatment;
4. Electricity;
5. Medication per colon;
6. Dietetics.

In the treatment of the colon, the position of the patient is an important consideration. While some prefer to place the patient in a lateral position, the writer finds that by elevating the hips to a considerable height, the dorsal position has many advantages.

By means of this table the patient can be raised to any angle and the water at a temperature of 50 C. is introduced, 250 to 300 c.c. at a time. This is repeated three, or four times with water at 50 C, each quantity being allowed to run off into a conveniently placed receptacle before introducing any more. The water is then raised to 52 C. and finally to 55 C., using in all about three to 6 litres of water.

The water is introduced through a soft-rubber tube with end and side openings. The patient is then allowed to go to the toilet-room, after which he is again placed on the table, and now receives a similar short treatment with water cooled down to 2 or 5 C. by means of ice.

I have extensively studied the effect of such treatment on dogs, and have used it on patients, with very favourable results.

The following typical ones may be mentioned:

Experiment I

The abdomen was opened under local anesthesia and partial general anesthesia, and the viscera exposed to cold draughts of air until the abdominal viscera became quite bluish with a fall of blood-pressure, and near approach of collapse.

Water at 50 C. was then introduced into the colon, and kept there for some time. No marked changes could be observed in the appearance of the abdominal viscera, even after 5 minutes of continuous irrigation.

The vessels were still markedly congested, and the rise in the blood-pressure was very slight. After withdrawal of the water, the animal was allowed to pass into a state of shock.

The viscera were of a very bluish shade, the vessels tortuous and congested.

Water at 55 C. was then introduced into the colon and kept there for one minute, the water withdrawn and the procedure repeated. A marked change was observed in the visceral circulation, the colour gradually became of a pinkish hue, the blood-pressure rose rapidly, and within 10 minutes the animal was apparently out of shock. The dog recovered.

Experiment II

In this experiment the viscera of a second dog was similarly exposed to cold air after opening the abdomen.

Water at 55 C. was introduced and immediately produced a very marked effect on the circulation, as in the experiment with No. 1. At the end of fifteen minutes, the heart-beat, which had become very weak before introducing the water, was again slow and strong, and the body temperature, which had previously fallen to 36 C. was again at 38 C.

At the end of 30 minutes the temperature was 39.5 C., pulse and respiration rapid, surface red, blood-pressure lowered.

Ice water at 3 C. degrees was next introduced. The temperature fell rapidly to 38 C., the pulse and respiration became slow and regular, the heart strong and vigorous, with a rise of blood-pressure. The colon was then opened for examination, and no haemorrhage was observed - no damage to its mucous membrane; in fact, it appeared perfectly normal. The colon has been frequently examined after repeated lavage at 55 C.; no damage could be observed.

These, and other experiments I have performed show:

1. Marked congestion of the abdominal viscera is not promptly reduced until the temperature of the in 1 rod need water has reached a temperature of 55 C.;
2. The blood-pressure is raised, and the heart slowed at first, but after prolonged irrigation with hot water, the blood-pressure is lowered, and there is a marked rise in the body temperature;

3. By subsequent use of ice water the heart-beat, respiration, blood-pressure, and the body temperature are again restored to normal conditions;

4. Water at 55 C. for the time mentioned above does not damage the mucous membrane of the colon as far as could be observed.

A series of observations made on patients under similar treatment.

The following points have been particularly noted:

1. The effect on Heart & Circulation.
2. Changes produced in the Blood;
   a) The number of red corpuscles before and after each treatment.
   b) The leucocytes.
   c) Comparisons regarding these points before and after a similar daily treatment, continued daily for 2 to 3 weeks.

3. The Effect on the Temperature: Mouth, Skin and Stomach.
4. The effect on the Gastro-intestinal tract.
5. The effect on the Kidneys.
6. The effect on the Liver.
7. The effect on the General Metabolism.
8. The Pelvic Organs.
9. The effect on Elimination and Auto-Intoxication.

Effect on the Heart and Circulation

The heart is not materially affected at first by water in the colon at the temperature of 50 C., but in the course of from 5 to 10 minutes the heart-beats become faster and the pulse weaker, owing to the dilatation of the arterioles.

When the temperature of the water has reached 55 C. there is an immediate reflex stimulation on the heart and tile vasomotor centres. The beats become slower and the pulse shows a firm briskness which is verified by an increased

blood-pressure, as shown by sphygmograph and sphygmometer.

Some patients experience a sensation of chilliness at the beginning of the treatment, but this soon disappears.

If the treatment be continued for thirty minutes the blood-pressure may again fall, owing to a dilatation of the cutaneous vessels, produced by the heated blood as it reaches the periphery.

The time when this occurs depends largely on the individual conditions of the heart and circulation, and is in all cases immediately changed on introduction of cold water into the colon.

With the cutaneous circulation well established, the equilibrium of the circulation remains constant for a longer or shorter time, this depending on the condition of the heart, the character of the blood-vessels, and the nervous mechanism of the individual.

Facts of diagnostic value may often be obtained in the progress of this treatment, by carefully observing the heart and circulation before, during and after the treatment.

Changes Produced in the Blood

The effect of the treatment and the composition of the blood is indicated by the following table showing the number of red and white corpuscles, with the percent, of haemoglobin, before and after each treatment.

Please see Table 1

The observations as represented in the Allowing table show that water of 48 to 50 C. produced no increased leucocytosis, but sometimes the reverse, while water at 55 C. has considerable effect in increasing the number of white corpuscles.

Increased Leucocytosis after Colonic Lavage, 8 to 10 hours after a meal. Temperature, 55 C. Time, 25 minutes. Followed by ice water at 5C., 2 to 5 minutes.

Table 2

Cases	Before Lavage	After Lavage	Total Gain	Percentage Gain
1	5740	6692	952	17
2	7800	10625	2825	36
3	4420	6722	2302	52
4	4964	7561	2597	34
5	11760	14700	3060	26
6	9660	11655	1995	26
7	6428	9349	2921	45
8	6627	7722	1095	16
9	7726	10772	3056	39
10	3924	5749	1825	46

Increased Leucocytosis after colonic lavage, 2 to 3 hours after a meal. Temperature. 55 C. Time, 25 minutes. Followed by colonic lavage with ice water at 5 C., 2 to 5 minutes duration.

Table 3

Cases	Before Lavage	After Lavage	Total Gain	Percentage Gain
11	5250	6353	1103	21
12	6370	9450	3080	49
13	3742	4949	2149	59
14	6484	7890	1410	23
15	9760	11368	1608	17
16	8242	9292	1050	13
17	10420	12656	2236	21
18	6720	7942	1222	19
19	7842	8976	1134	14
20	7542	7894	2154	39

Estimation of the number of Leucocytes after colonic lavage. Temperature of the water, 50. C. Followed by cold water, temperature 5 C. Time, 25 minutes.

Table 4

Cases	Before Lavage	After Lavage	Total Gain	Total Loss	Percentage Gain
21	7717	6672		945	12
22	6303	6090		390	6
23	9345	8400		945	10
24	5670	6190	520		10
25	11478	10773		705	7
26	9341	9450	109		1
27	6038	5888		150	2
28	3479	3686	207		6
29	7335	7350	15		0.2
30	9292	8242		1050	11

One reason may be offered as an explanation for these phenomena. The occasional decrease produced by water at 48 C. to 50 C. is probably due simply to rapid dilatation of the vessels, with lowered blood-pressure, and consequently a less number of leucocytes are swept into the general circulation.

The increase in the blood pressure produced by water at 55 C., as it does on the splanchnic area, may sweep out the blood from this region into the general circulation.

Alimentary leucocytosis is undoubtedly produced in this way, viz., through vasomotor stimulation of the splanchnic area, but the greater increased leucocytosis resulting from colonic lavage at 55 C. is due to the greater stimulation produced by the high temperature acting on the splanchnic area.

Comparison of the composition of the blood before and after two to three weeks' treatment has shown that while a general circulation improved with increase of total number of corpuscles, there is found no permanent increase of the proportion of the leucocytes over the reds.

We may regard the increase in number of leucocytes as physiologic.

Effect on the Body Temperature, Mouth, Skin and Stomach

In a number of cases of gastro-intestinal diseases where the condition of circulation gave evidence of congestion of the splanchnic area with contraction of the peripheral arterials, it is interesting to note that the ski temperature was below the normal while the internal temperature as found in the stomach was above normal.

After colonic lavage at 50 C. for 5 minutes, there was an immediate fall in internal temperature with a corresponding rise of the skin temperature.

On continuing the colonic lavage there was a gradual rise of the internal temperature as determined in the stomach, and a continuation of the rise of the skin temperature.

At the end of 30 minutes the general elevation of temperature was found as usual with the equalization of the relative temperature as determined in the stomach, mouth, and skin.

On the introduction of ice water the temperatures were equally reduced to normal limits. The following table is taken as the average from a number of cases showing temperatures found in the stomach, mouth and in the skin.

Average temperatures (Fahrenheit) of the mouth, stomach and skin before and after colonic lavage at 55 C. in cases of splanchnic congestion.

Table 5

Time	Mouth	Stomach	Skin
Before lavage	98.1 F	101.4 F	93.8 F
5 minutes before lavage	98.1 F	100.2 F	95.7 F
20 minutes after lavage	99.6 F	100.7 F	96.2 F
30 minutes after lavage	101.0 F	101.6 F	98.0 F
After lavage with ice at 50 C. for 5 minutes	98.4 F	99.2 F	95.0 F

Effect on the Gastro-Intestinal Tract

The immediate effect of high temperatures in the colon is to produce a series of contractions.

These contractions at first appear to be local, but in the progress of the treatment the peristalsis of the entire colon followed by both peri and anti-peristaltic movements of the small intestines are observed to take place, and these movements are extended until those of the stomach are also materially increased.

These contractions of colon, intestines and stomach are not produced by water having a temperature of only 48 C., but they begin at once when water at 55 C. is introduced into the colon.

The following experiments on dogs will serve to show the effect of water on the movements of the Gastro-intestinal tract.

Experiments on the Gastro-Intestinal Tract

Experiment 1

The abdomen of the dog was opened and the viscera exposed. Water at 48 C. in the colon failed to produce any visible movements either of the colon or of the intestines.

Water at 50 C. also failed to produce any increase in the natural movements of the intestines. Water at 55 C., on the other hand, immediately produced local contractions, followed by slight anti-peristaltic and peristaltic movements.

As this water was withdrawn and fresh quantities having the same temperature were introduced, the peristaltic movements continued to increase, and after a lapse of 25 minutes the movements had reached the stomach, and the wave continued, causing a marked and vigorous retraction, followed by extension of the pyloric portion of the stomach.

These observations were verified by the following experiments:

Experiment 2

We experimented on 3 dogs simultaneously.

Dog 1 was subjected to colonic lavage with water at 55 C. for 20 minutes.

Dog 2 was similarly treated.

Dog 3 received no lavage.

The abdomens of all these dogs were then opened at the same time, by myself and my assistants. The peristaltic movements were very marked in Dog 1, the movements extending from the stomach throughout the whole tract.

The contractile movements in this dog were in very strong contrast with the slow and occasional movements in Dogs 2 and 3.

There was little or no difference to be observed in the intestinal movements of the latter 2 dogs, one of which had received colonic flushing at 50 C. and the other no flushing at all.

Similar introduction of water at 55 C. in the treatment of patients at once provokes peristaltic pains which, according to the testimony of female patients, are of the same nature as labour pains.

These pains are very much lessened, however, by first using water at 50 C. and then increasing its temperature to 55 C.

A somewhat extended treatment of this kind produces a very decided general peristalsis, as is evidenced by the passing of gas and faecal matter from high up in the intestines. No distress accompanies this treatment, and the patients, in fact, usually express a feeling of general comfort.

The treatment, further, also exerts a marked influence on the motor power of the stomach, as I have proved by a large number of observations in cases of gastric motor insufficiency due to simple atony.

In considering the causes that produce such remarkable increase of the motility of the gastro-intestinal tract when the colon is treated with hot water (55 C.), it would seem fairly probable that:

1. The stimulation of the end nerves in the colon by water at 55 C. produces a reflex action on the nervous mechanism of the entire tract.
2. The heated colon may act like a hot water bag, by direct contiguity with the abdominal viscera.
3. The heated blood of the splanchnic area may in turn stimulate the muscle cells.
4. The vasomotor effect in replacing venous by arterial blood in the muscle walls would stimulate the muscle tone and produce contractions, and the periodic introduction and withdrawal of the water act as a gymnastic exercise. It may be that all of these factors are more or less active in producing the general result.

Effect on the Kidneys

The hot-water treatment has a decided effect on the kidneys. The secretion of the normal kidneys varies with the degree of the circulation, or the amount of blood that flows through the organ.

Landergren and Tigerstedt have shown that when the kidney is in active functional condition, unusually large quantities of blood pass through it.

The nerve-supply of the kidney, its vasoconstrictions and vasodilatations, are largely influenced by reflex action, and the secreting activity of the kidney seems to further depend on the changes in the blood-supply.

The secretion of urea by the epithelial cells of the kidney has gained additional significance through Berkeley's recent discovery of nerve-fibers passing through the basement membrane and ending between the epithelial cells.

In the course of my experiments it was found that water at 40 C. to 45 C. produced no immediate secretion in the kidney, and that this was produced within 3 minutes by water at 55 C.

The water of the lower temperatures was further found to remain in the colon for a very much longer time than the water of higher temperature.

A moderate quantity of the latter would be completely absorbed in about 15 minutes, while from 1 hour to 1 hour and 30 minutes would be required for the complete absorption of an equal quantity of water at 40 to 45 C.

The following table of urine secretion and urea elimination by the kidney indicates most clearly how the functional activity of this organ is stimulated by hot water lavage of the colon.

Estimation of the amount of urine and urea before and after colonic lavage. Temperature. 55 C. Urine collected for 24 hours. Diet and work the same before and after treatment.

Please see Table 6

The causes for this interesting phenomenon may be the following:

1. Reflex stimulation of the kidney cells and of the vasomotor mechanism of the gland.
2. Increase in the general blood-supply.
3. Heat stimulation by the heated' blood and directly by contact with the heated colon.
4. Increased destructive metabolism would produce increased quantities of urea and alloxur bodies, and these would act as diuretics and produce an increased activity on the part of the kidney.
5. Absorption of water alone would increase the volume of the blood and of the blood-pressure.

Effect on the Liver

The liver is also largely influenced by Colonic Lavage. This has in fact already been shown by the investigations of a number of earlier investigators. Bidder, Schmidt, Zolesky and Rosenberg have shown that the flow of bile in dogs is increased by the introduction of water into the intestines.

Krull and Lowenthal have shown, clinically, in cases of Catarrhal Jaundice, that Irrigation of the Colon with cold water produces an increase in the flow of the bile.

Noel Poton has, however, further shown that this apparent increase is due to an increase of the water and not of the solids of the bile.

Barbera further shows that the excretion of bile runs parallel with the excretion of urea, and as urea is chiefly formed in the liver, other conditions being equal, it forms an index, or at least a partial index, of the bile excreted.

The above table of urea determinations can therefore be taken to indicate the effect of hot water on the bile secretion of the liver.

It will be noted that for some time after treatment with colonic lavage, the per cent, of urea remained quite high.

Rosenberg and Barbera's work shows that the effect of food on the liver is due to the vascular changes produced, and Heidenhain and Rohring have shown that an increase in the flow of blood also increases the flow of bile.

The general conclusion among physiologists is that the bile-producing function of the liver is not under the direct control of the nervous system, as is the case with other glands, but that it is influenced chiefly by the flow of blood.

These facts are of great importance in the treatment by methods that influence the circulation, especially that of the splanchnic and more particularly the portal circulation.

Lavage of the colon with water at 55 C. not only increases the flow of blood, but further stimulates the cells of the gland by raising the temperature of the blood as well as by direct contact with the heated colon.

Effect on General Metabolism

Metabolism, strictly speaking, is simply the changes occurring within the body, between food material and the tissues and organs of the body, and these changes are, as far as we yet know, subject to the laws governing physics and chemistry.

That the metabolism may be effected by physical means, such as motion, is perfectly clear.

The changed or hastened process of metabolism involves corresponding chemical changes, as, for example, in the oxidation of food or of tissue material, and the setting free of an equivalent quantity of heat.

The heated blood may act on tissues cells, may stimulate the nervous mechanism and give rise to increased cellular activity in tissues and organs throughout the whole body.

Metabolism, destructive and constructive (katabolism, anabolism), is further effected by the character of the food

material, as it is brought into the blood, by the supply of water and of oxygen, by changes of temperature, and, finally, by nervous impulses of various kinds.

These metabolic changes, whether destructive or constructive, may be produced by impulses set up in the same nerve; the one process may be gradually replaced by the other, or both may go on at the same time.

Summary

Hot water in the colon (at 55 C.) influences metabolism:

1. By increasing the circulation, thus furnishing more food, more oxygen to the tissues, and more rapidly removing a variety of waste products.
2. Through nervous impulses by the heat stimulation.
3. By directly increasing the temperature of the blood.
4. By direct heat stimulation of the cells of organs contiguous to the colon.

Increased metabolism is shown by increased elimination, especially of urea, by an increased amount of food taken, and often by an increase in the weight of the patient.

Effect on the Pelvic Organs

The beneficial effect of Colonic Lavage on the pelvic organs, both male and female, is considerable.

In all forms of pelvic congestions of the uterus and ovary the symptoms rapidly disappear by the use of colonic lavage, using water at 55 C..

Water at such a temperature is, as has already been pointed out, perfectly safe, and is well borne in the colon, although it is not safe to use such a temperature directly in the more delicate and sensitive vagina.

Aide-Intoxication and Elimination

In considering, finally, the effect of colonic lavage on such general processes as elimination, auto-intoxication, oxidation, etc., especially on that of the various forms of toxaemia or general auto-intoxication, I must confine myself to a number of observations made directly on patients.

Auto-intoxication can evidently originate in a number of different organs through functional failure, such as the gastro-intestinal tract, the liver, the kidneys, the skin and the lungs.

1. Auto-intoxication arising from the gastro-intestinal tract is probably far more common than is generally supposed. Cases of acute gastro-enteritis are relatively rare, while cases of chronic gastro-intestinal atony are quite common, resulting in various symptoms of auto-intoxication.

2. The manifold function of the liver makes it a fairly common starting-point for toxaemia, either directly, by producing toxic substances, or indirectly through its failure to take care of the toxins that pass through it from the blood, as in the case of catarrhal inflammation of the bile-ducts. In any case, colonic lavageat 55 C. is an active means of combating the complex symptoms known under the term cholemia.

3. The auto-intoxication arising from suppression of the renal function we term uremia. In pronounced cases with severe symptoms of uremia, the kidneys chow far advanced pathologic lesions, and such cases result in death. Marked renal disturbances, such as congestion, in which the function is inadequate, and the uremic symptoms quite pronounced, are, on the other hand, promptly restored by colonic lavage.

In many cases of pathologic lesions, too, the results obtained by colonic lavage arc certainly gratifying.

The increased flow of blood through the kidney, the increase in its functional activity, the removal of the

congestion, etc., as produced by the colonic lavage at high temperatures, together with the increased vicarious action of the intestinal tract and the skin, these relieve the crippled kidney and give it sufficient opportunity to recover. In these cases the lavage does not only improve the functional efficiency of the kidney, but other organs suffering from retained toxic substances are affected, and thus help to improve the general circulation. The result of colonic lavage certainly seems to the author more effective than the direct treatment with diuretics and renal medical stimulants, though these are by no means to be entirely disregarded.

4. The skin is capable of excreting toxic substances. This excretion can be materially increased by the increased circulation of the heated blood as resulting from lavage. The heated blood is carried to the periphery, and becomes a powerful factor in stimulating the sweat- glands to increased elimination. Other methods are used to produce this end, but this method has the advantage that it does not debilitate the patient.

From what has been stated of the effects produced by Colonic Lavage on the Gastro-Intestinal Tract, on the Liver, Kidney and Skin, it is clear that the result of the treatment must be valuable in various forms of autointoxication with an improvement in the general and local circulation, including the circulation of the lymphatics.

The result, in turn, effects an increased leucocytosis, and thus gives another powerful aid in combating various forms of sepsis and auto-intoxication." - Dr Fenton B. Truck, MD, in "Journal of the American Medical Association", 7 October 1899.

Further Observations on the Treatment of the Abdominal Viscera Through the Colon

Part I

"In a previous communication it was shown that small quantities of hot water (55° C.) introduced into the rectum produced a marked effect on the heart and general circulation and especially on the abdominal organs.

From these results it was evident that hot water introduced at the temperature mentioned into the colon had a greatly beneficial effect upon the abdominal viscera.

Air, hot or cold, forced through a double tube into the colon and allowed to escape also acts not only as a powerful stimulant to the abdominal viscera but also acts as a species of pneumatic gymnastics of the colon.

Technique

In the introduction of hot water into the colon the following technique is adopted:

The patient is placed in a dorsal position upon a table specially devised for the purpose, which is so adjusted that the hips may be raised or lowered to any desired angle without discomfort.

The solution employed is usually a 9% normal salt solution when the therapeutic effect of heat and cold are desired.

For other purposes mild antiseptic and medicated solutions may be employed.

At first 200 to 300 cubic centimetres of water at a temperature of 50° C. is introduced.

This is allowed to return through the tube into a conveniently placed receptacle and the procedure repeated. Every time the water is introduced its temperature is gradually raised until it reaches 55° C.

In all from 3 to 6 litres are needed.

The patient is then allowed to evacuate the bowels, after

which he receives similar short treatment with water cooled to 2° C. or 5° C.

The amount of water introduced and withdrawn and the duration of the treatment depends upon the character of the case.

For continuous irrigation my double recurrent tube or needle douche has answered the purpose best in the hands of gastro-enterologists, like Herschell, Treves, Gillespie and others.

By continuous irrigation a somewhat different action is obtainable from that already referred to.

It is indicated in:

1. Impaction.
2. Acute Gastro-Enteritis.
3. And during the early stages of Appendicitis.

A strict observance of technique judicially varied in each case gives the best results.

The mucous membrane of the colon, like that of the throat, seems to be insensible to comparatively high temperature. The sensations within the colon as to heat or cold are not very definite.

This may in part be due to the fact that the colon sensation has been so specialized as to faecal pressure as to lose its heat and cold reaction.

That the treatment through the colon influences not only the general circulation, but also stimulates the nerve actions of the abdominal viscera, and even the cerebral and spinal blood pressure, has long been known.

The principle on which stimulant enemata have been employed in opium coma and allied conditions is significant evidence of this.

The anogenital centre is notoriously the last to be affected in coma.

Numerous instances have been reported where death from opium coma and anesthesia has been prevented by its stimulation.

Furthermore, stimulation of the ganglia in the walls of the intestines cannot fail to produce effect on the spinal and cerebral centres.

The increased action of kidneys, liver and other organs after the employment of colonic means is evidence in this direction.

This is further shown by the fact that favourable results depend not upon the amount of water introduced, but upon the reaction between heat and cold.

Large quantities of water introduced at one time are detrimental.

Small quantities frequently repeated have markedly beneficial effects. Great objection frequently exists to the introduction of water, especially hot water, into the colon.

The hot water produces depression, and even collapse at times.

Warm water is particularly objectionable in this particular.

Atony of the bowels from this cause, moreover, is very frequent.

Distention of the bowels with water, subsequently withdrawn, would be of value in bowel gymnastics were it not for the fact that since the water is slow to return and is not compressible it causes undue distention.

In treatment of the colon the object is:

1. When atony exists to secure heat;
2. Distention;
3. Contraction, and peristalsis producing gymnastic exercise.

For these purposes air often answers better than water.

If heat be desired the air can be heated by passing it from a compressed-air tank through a bottle of water heated to the required temperature before passing it into the colon.

The method of treatment is useful in atony of the bowels, whether it exist alone or with obstruction or impaction.

Compressed air is used with a double tube introduced into the colon.

When the colon is distended, air is allowed to escape through the outlet tube.

Air at 55° C. reaches as far as the colon.

Nebulization of the colon may be thus employed, any of the nebulizing mixtures adapted to the colon being used." - Dr Fenton B. Truck, MD, in "Boston Medical and Surgical Journal", 2 November 1899.

Further Observations on the Treatment of the Abdominal Viscera Through the Colon

Part II

"In a paper on this subject, before the American Medical Association, in June 1899, I presented a summary of experiments on animals demonstrating the physiologic results of certain methods of treatment applied to the colon.

It was there shown that the introduction of small quantities of water at a temperature of 55 C. through the rectum into the colon produced marked effect not only on the abdominal organs but also on the heart and general circulation.

These experiments and the results of clinical observation along lines indicated by them demonstrate, in a variety of cases, the great value of the procedure.

In connection with these experiments and resultant clinical data, the present communication proposes to discuss other methods of colonic therapeusis original with myself.

1. In the first of these new methods, air - hot or cold - is forced into the colon through a double tube, and allowed to escape. This hot or cold air, through its stimulant power, produces what has been well styled gymnastics of the colon.

2. By a second method colon massage is obtained.

3. By a third colonic electrization is secured.

4. Through a fourth method direct medication of the colon is applied.

5. A fifth secures dietetic and other therapeusis through the colon.

As an introduction to the clinical evidence of the value of hot water lavage of the colon, a resume of the technique seems necessary:

The patient is placed in a dorsal position on a table so adjusted that the hips may be raised or lowered to any required angle without discomfort. The solution employed is usually a 9%, salt solution at a temperature of 55 C.

This temperature is employed to secure the therapeutic effect of heat, 200 to 300 c.c. of water at a temperature of 50 C. is first introduced into the rectum. T

his is allowed to return through the tube into a receptacle, in order to prevent over distention and to replace the water that has been lowered in temperature in the intestine.

The procedure is then repeated and with each repetition the temperature is gradually raised until 55 C. is attained.

For this purpose from 3 to 6 litres of water will be required. At no time is a large amount to be introduced into the intestine.

The patient is then allowed to empty the bowels. After this he is placed on the table and receives a similar short treatment with water cooled to 2 C. to 5 C. by means of ice.

The quantity of water required and the duration of the treatment will depend on the character of the case.

Therapeusis here as elsewhere will depend on correct diagnosis not only of the disorder but of its type. Based on this, the procedure is eminently valuable. For continuous irrigation a double in lieu of a single tube should be used.

The double recurrent tube or "needle douche" which I have described elsewhere has answered this purpose well in my hands and in those of Herschel, Treves, Gillespie and other gastro-enterologists.

Favourable results from the procedure thus described depend not so much on the amount of water introduced as on the reaction between the stimulation of heat and that of cold. A single large quantity of water is detrimental, while small quantities of hot water frequently repeated have remarkably beneficial effects.

The colon mucous membrane, like that of the back of the throat and esophagus, will sustain a remarkable degree of heat without undesirable reaction.

The therapeutic indications are based on the vasomotor conditions which underlie certain pathologic disturbances. In a general way the cases which are benefited by this procedure may be divided into those where the liver is most markedly affected, those where the kidneys are, and finally those where an intestinal factor is most evident, as in appendicitis. In hepatic insufficiency, catarrhal jaundice, chronic hepatitis, the results of the treatment have been exceedingly satisfactory.

The Pit of the Stomach

Case 1 - J. B. M., 54 years old, complained of pain in "the pit of the stomach" and right side with a feeling of distress and of dull heaviness. In 3 months he had lost 13.6 kilos, but had been well up to 3 months prior to the first attack. He had often been obliged to go without breakfast, and had neglected to take lunches, and returning home ravenously hungry he had often eaten too much at one meal.

He had also neglected exercise. Three months of this mode of living resulted in the symptoms described, together with slight icterus.

Partial recovery occurred, but he was unable to attend to business and a month later a second attack occurred, followed as before by recovery, but with a longer interval than after the first attack.

Three months after the first attack there was pain, icterus with clay-colored stools, and complete loss of appetite.

He had been treated by all the usual hepatic medicinals as well as cold water enemata, but grew worse.

I was called in consultation and the patient placed under my care.

On careful examination it was found that glandular gastro-duodenitis existed.

The liver was enlarged and hardened but not nodulated. The stools were light in colour and the urine contained bile.

The patient was placed under Colonic Lavage with water at 55 C., a normal salt solution being employed.

In 3 weeks the symptoms had entirely disappeared and he had gained 7 kilos. Six months later there had been a complete recovery with a gain of 13.6 kilos in weight.

Tinnitus

Case 2 - Dr W. R. F., aged 41 years, complained of pain in the region of the liver, loss of appetite and of weight. There was dizziness, and ringing in the ears, as well as of depression. The skin was discoloured at times, and he had frequent attacks of what had been diagnosed as cholemia.

He had been under the usual treatment, medicinally, for this condition for 6 months. On examination there was found an increased hepatic area in the cardiac direction, reaching to the mammary line.

The urine did not contain albumin, sugar nor bile; 700 c.c. were passed in 24 hours; the urea was 1.87, the specific gravity 10.25. The diagnosis was hepatic hyperemia with resultant insufficiency. During 1 month he was treated with Colonic Lavage at 55 C., 18 times.

The symptoms all disappeared, the liver diminished in size, the urine was increased in quantity and contained an increased amount of urea, the appetite returned, the patient resumed practice and has continued well.

Diabetes

In the following case diabetes, evidently of hepatic origin, co-existed with hepatic insufficiency.

Case 3 - A 59 year old man complained of pain in the hepatic area, of belching gas and of disturbances of digestion 1 hour after meals. He was markedly depressed.

On examination the liver area was found within normal limits, but on pressure was hard and resistant. The heart sounds were weak; the second sound at the base was accentuated. The gastric area reached 2 cm. below the

umbilicus. On examination of the stomach contents there was found retention of food but no free HCI.

The patient had been on strict anti-diabetic diet, and had visited Carlsbad several times with slight improvement.

On return to the United States the symptoms reappeared. He was placed on a mixed diet, care being taken to select such food as was nutritious and was easily digested.

There was a slight restriction in the carbohydrates. Colonic Lavage was begun with normal salt solution at 55 C.

The treatment was continued every other day for 2 months. During the 3rd month it was given twice weekly, after which the patient took only occasional treatment. When indicated, intragastric medication was given.

The Principal Treatment, however, was Colonic Lavage.

As a result all the symptoms disappeared, the bowels became regular, the urea returned to normal limits and the glycosuria disappeared. The patient has had no treatment for several months and has remained well. No sugar is detectable in the urine.

Depression

Case 4 - E. H. L., a man 36 years old, complained of dizziness and depression which prevented him from attending to business. He was markedly constipated, had used alcoholics steadily for years and often to excess, and the skin was discolored, the heart area enlarged, but the valves intact.

The liver area was enlarged and the liver was hard and resistant. On examination of the stomach contents, one hour after the Ewald test-meal, there was found: total acidity 45, free HCl %.05.

Seven hours after a regular meal the stomach was empty and mucus was present. The stomach was thick and not distensible, the gastric area normal.

The diagnosis of hepatic cirrhosis was made. Colonic Lavage 55 C. was given daily for one week, then every other day for 3 weeks, then twice a week for the next month and once a week for the following 3.

The principal symptoms disappeared in 1 month; there was gradual improvement in the general condition.

The patient now attends to business and claims to be as well as ever.

Renal insufficiency, with or without albuminuria is frequent in many chronic cases, and these often present more or less complete evidences of the symptom-complex, Uremia.

In such cases Colonic Lavage gives brilliant results.

Even in true nephritis the condition is much improved, and clinically the disorder seems to have disappeared.

Acute Renal Congestion

The following cases illustrate the prompt result and lasting benefit of this treatment:

Case 5 - A 58 year old woman suffered from acute renal congestion with suppression of urine. There were ominous symptoms of uremia, great depression and nervousness and headache. Her throat was markedly inflamed.

During the first 24 hours no urine was passed, but during the second 24, 100 c.c., after which the quantity reached 300 c.c.; albumin (+) urea (-).

The usual medicinal treatment had had but slight effect.

When I was consulted Colonic Lavage 55 C. was ordered every hour for 3 or 4, after which it was given every 3 hours.

Under this treatment the urine greatly increased in quantity and the albumin diminished. The treatment was continued twice daily until recovery.

Chronic Nephritis

Case 6 - A 45 year old man had suffered from chronic nephritis and there was albuminuria with granular casts, with nausea and vomiting daily, headache and marked loss in weight.

On examination of the eyes Dr. Casey A. Wood found an atypical albuminuric retinitis in the right one.

He passed 500 c.c. of urine daily, containing 12.5 grams of urea, albumin and casts.

After treatment by Colonic Lavage, the urine increased to 700 c.c.; the specific gravity was 1025.

The test for albumin gave negative results, although there was albumosis. The urea had increased to 22.36 grams. **The vomiting ceased.** The treatment was continued at a regular interval for 3 months. The weight increased 18 pounds. The urine became free from albumin and casts and the amount excreted was within normal limits.

One year afterward the patient remained in healthy condition and no albumin nor casts were to be detected.

During the past 6 years I have found colonic lavage with alternate hot and cold water useful in the early stages of appendicitis. In some cases where diagnosis can not be made at once, a waiting course is adopted.

In such and in any event employment of the alternate hot and cold Colonic Lavage has given good results, since even where operation is indicated the danger of shock is lessened.

The treatment, moreover, does not mask but accentuates the cardinal symptoms.

The pain is lessened, the shock reduced, the circulation markedly improved, the temperature lowered, the gaseous distention reduced, the abdomen relaxed and rendered less painful to the touch. It thus becomes possible to make more thorough physical examination.

In the following 3 cases the symptoms subsided within 24 hours. Operation had been refused in each case.

As soon as adhesions are formed, colonic treatment should be used, if at all, very cautiously.

Acute Appendicitis

Case 7 - Mrs. J. W., wife of a physician, had an acute pain in the right iliac region (the most common cause of pain in the right iliac fossa is acute appendicitis), with vomiting and shock and a temperature of 39 C. The bowels moved slightly after enema. On examination pelvic disease could be excluded.

There was great tenderness on pressure over McBurney's point. The matter vomited consisted of duodenal contents. Continuous colonic lavage was given for 35 minutes, and this was repeated 2 hours afterward.

The bowels moved, the temperature fell 38.5 C. the vomiting ceased and the pain lessened. The patient was then removed to the Post-Graduate Hospital and colonic lavage at 55 C. continued.

On consultation with Dr. A. H. Ferguson, the diagnosis was confirmed and the patient prepared for operation.

On account of the rapid improvement in the symptoms it was, however, decided to wait and continue treatment by Colonic Lavage. She made an uneventful recovery, without operation.

Appendicitis

Case 8 - A 16 year old girl suffered from acute appendicitis, but operation had been refused. I was called in consultation and found her very weak, vomiting constantly and suffering from great pain with a temperature of 39 C.

There was a diffused maximum tenderness over the right iliac region.

Colonic lavage was undertaken at once. On account of great weakness care was taken to avoid overstimulation. Small quantities of water were used at short intervals; the temperature was gradually raised to 55. C. The pain gradually lessened and the temperature fell.

Colonic feeding was instituted and no attempt made to feed by the mouth. Colonic lavage was continued twice daily, and she improved rapidly and made a good recovery.

Consent to operation was obtained 6 weeks after recovery from the attack, the appendix removed and the patient made a complete recovery.

Second Attack of Appendicitis

Case 9 - Dr. H. E. P., aged 55, came under observation with a second attack of appendicitis, with great pain and

vomiting. The temperature was 40 C. Preparations had been made for operation, which was refused.

Colonic Lavage at 55 C. was begun. Immediately after, the patient fell asleep.

On awakening 2 hours thereafter colonic lavage was again given and a 3rd treatment was given at night.

The pain was much lessened, the shock was reduced and the temperature fell to 39 C.

The treatment was continued next morning, noon and night.

The temperature fell to 38 C., the pain ceased and the general condition was much improved.

He made a good recovery and has remained well since.

Continuous irrigation produces effects slightly different from those of colonic lavage, and is indicated in impaction, acute gastro-enteritis and in the early stages of appendicitis.

Rectal enemata have been used in appendicitis, but their effects have been more or less marred by deficiencies resultant on the technique employed.

The modus operandi of colonic lavage and continuous irrigation is much more complex therefore than would at first be assumed. They not only affect that of the bowels but also the general abdominal circulation. This effect is produced through their influence on the plexuses of the intestinal walls and on the ano-genital center.

This center is one of the last reflexes to be extinguished during coma of any kind, and hence what affects it has a powerful influence on the abdominal and pelvic organs and on the central nervous system. This center has the widely diffused action which results in the influence of therapeutic and pathologic procedures on the hepatic, renal and general circulation.

The temperature as well as the mechanical influence of the procedures described plays a part in therapeutic results through their influence directly on nerve plexuses.

For several years, being convinced of its value by a lengthy experience I have advocated the employment of colonic lavage in typhoid fever.

There is no danger resultant on the introduction of small

quantities of water at a time, being allowed to siphon off before introducing more.

These methods may be of more advantage used as a douche.

There have been advocates of the use of large enemas of water in typhoid fever. The procedure has been warmly advocated by Schnell and Hensela - Meseritz.

These methods have been found to be especially of value in the early stages of typhoid fever.

Despite the glowing eulogisms which this procedure has received, the introduction of large enemata (stretching the rectum and sigmoid flexure) has produced great weakening.

This is not surprising when the fatigue attendant on the effort to expel from 1 to 2 kilos weight of water is remembered.

With precautions with the technique already described, and with variations in temperature and time of treatment suited to each case, the rain or needle douche procedure will have decidedly potent effect in removing from the colon the toxin and contagious materials and in restoring the circulation.

While it can not be definitely stated that duration of the disease is shortened, still there is such an improvement in the lassitude, delirium, pyrexia, and other constitutional expressions of typhoid fever, and such a lessening of complications, that the value of the procedure is demonstrable to any one employing it.

After a careful practical study of the methods in vogue during the past decade I consider this method of colonic lavage of most value.

Contraindications

The treatment is contraindicated in cases where dilated heart or other grave cardiac lesions exist.

In severe proctitis and sigmoiditis very hot water sometimes acts as an irritant to the intestinal walls.

Here water at the room temperature is preferable.

Except in acute diseases - for the immediate physiologic action indicated even then only if there be proctitis - damage will not result unless the treatment be continued too long.

In eases of marked arteriofibrosis, when danger from haemorrhage may result from the employment of any active procedure, lavage is contraindicated, as also in advanced tuberculosis, as well as in cirrhosis in which the conditions of the vessels may produce haemorrhage on slight strain.

These contraindications are such as will occur in individual patients rather than in particular types of disease.

They are therefore such as must be formulated by physicians as to the therapeusis of any patient.

A frequent personal idiosyncrasy prevents introduction of water, especially hot water, into the colon. Its introduction is sometimes followed by collapse. The general atony of the bowel resultant on the enema habit is a comparatively minor though unpleasant expression of this condition.

In treatment of the colon, especially when atony exists, the objects are: application of heat, distension with resultant contraction and peristalsis, the last acting as a gymnastic exercise of the colon.

To avoid the untoward effects of water, air may be employed. If needed the air can be heated by the methods described at the last session of the British Medical Association.

Compressed air is introduced through a double tube into the colon. When the latter is distended, the air is permitted to escape through the outlet tube. Air heated to 55 C. reaches as far as the caecum. The air can, at need, be so medicated with menthol, clove-oil, etc., as to apply the method of nebulization to the bowel. The chief value of this is relief of atony through stimulation, with resultant benefit thereby to constipation consequent on the atony.

Like all other organs of the body, the intestine has its own system of nerves responsive to peripheral influences from its contents. These, as Langley has lately shown, react differently and independently from the general system of peripheral nerves. They require local stimulation as well as systemic in cases of atony.

Hence abdominal massage can not fulfil all the claims made for it in this particular. To act on these nerves the bowel requires massage from the mucous surface. This is best accomplished by the gyromele or revolving sound adapted to this purpose.

Through the cable of the gyromele electricity may be added to vibratile massage. The flexible cable with the sponge attached is easily slipped into the bowels.

The cable and sponge are rotated by a small drill.

The cable can be readily turned into an electrode, placing the indifferent electrode on the abdomen.

According to Herschell (Constipation, 1899) this gyromele can not injure the bowel, nor is it necessary to inject previously with water. Well wetted and soaked, the sponge easily passes the sphincter and is readily pushed as far as the sigmoid flexure.

Conclusions

The facts already cited as to the benefit of massage applied to the bowel's mucous membrane are peculiarly applicable to electrization, which can be applied to the mucous membrane of the bowel, as far as the colon is concerned. A large area can be reached through the cable and irrigator by the method already described." - Dr Fenton B. Truck, MD, in "Journal of the American Medical Association", 5 May 1900.

Abdominal Viscera: The viscera of the abdomen proper include the stomach, intestine, liver and biliary system, pancreas, spleen, kidneys, ureters, and suprarenal glands.

The solid abdominal viscera (singular: viscus): is a collective term for those internal organs of the upper abdomen that are primarily solid in nature, namely the liver, pancreas, spleen, adrenals, and kidneys. It is used in contradistinction to the hollow abdominal viscera, which includes, the stomach, small bowel, large bowel, rectum, gallbladder, and bladder.

If gas-filled viscera are referred to then only the stomach, small and large bowel, and rectum are included.

McBurney's Point: "McBurney marked the base of the vermiform appendix opposite the junction of the lower and middle thirds of the line joining the anterior superior iliac spine to the umbilicus." - Gray, 1946.

Alloxur Bodies: "As the xanthin-bases, as well as uric acid, all contain an alloxan group and a urea-group, united in a definite manner, Kossell and Kruger have suggested the term alloxur in place of xanthin. The alloxur-bases include, therefore, hypoxanthin, xanthin, adenin, guanin, methyl-adenin, dimethyl-hypoxanthin, hetero xanthin, paraxanthin, theobromin, theophyllin, caffein, carnin, and some less well known ones; while the alloxur-bodies comprise these bases plus uric acid.

Each of the bases contains less oxygen than uric acid, and, according to the modern theory, they, or rather an antecedent common to them and to uric acid, yield this body through being oxidized in the system." - Dr William J. Smith Jerome, MB, in "The Formation of Uric Acid in Man, and the Influence of Diet on its Daily Output", Journal of Physiology ,1 Sep 1897.

Alloxuria: The presence of alloxur bodies in the urine in abnormal large quantities.

> *"There are, therefore, several ways in which we may rationally treat a person who is suffering from a deficiency of epinphrin. It is believed that this agent is used in the system to neutralize toxins. It is, therefore, proper to remove these toxins in any harmless way and thereby relieve the over-worked adrenals. Colonic flushings, drinking large amounts of water, the use of antitoxin, dieting to reduce the toxins formed to the least possible amount, exercise to promote their elimination, the injection of epinephrin, and stimulation of its production by removal of*

excessive disturbances, or by the use of drugs known to stimulate the adrenal cells to activity, are all rational modes of procedure. What is true of the adrenals, moreover, is more or less true of all the other ductless glands and tissues producing an internal secretion." - Dr. Bennett, MD in "Journal al of the American Osteopathic Association", May 1913.

"Water externally is only second in importance to water internally. The history of spa treatment furnishes massive evidence worth studying. Colonic irrigation not only cleans out the lower bowel (made classic as a danger center by Metchnikoff), but also furnishes the best and simplest relief from toxic effects in many forms of genitourinary disorder. This diuretic action of colon-flushings—really invaluable—is alluded to in literature only incidentally, though it furnishes an excellent remedy in many chronic disorders where the heart and kidneys are competent and renal inadequacy is a feature. Of course, one should be careful to avoid overmuch of fluids in chronic nephritis and high blood-pressure with a weak heart. Salt should not be used." - Dr J. Madison Taylor, MD in "Journal al of the American Osteopathic Association", November 1912.

Remissions in Pernicious Anemia

"W. L. Bierring reports three cases of pernicious anemia with remissions, with tabulated blood-counts.

In one case the improvement followed the removal of the patient from the county farm to the hospital, where the better hygienic and dietary conditions were undoubtedly a strong factor.

In several cases observed, out of a total of 25 in the last 2 and a half years, in which fermentative changes in the intestines were a prominent symptom, high Colonic Irrigations with physiologic salt solution seemed to be connected with remissions or improvement.

Though the blood count shows a marked improvement in the remissions, there are still abnormal features indicating that a disturbance in hematogenic function still exists.

At best a remission is but a partial cure, and reserve in prognosis and caution in interpreting apparent therapeutic results are always advisable.

Bierring considers that the view that the disease is an expression of a toxemia, probably enterogenic in origin, is borne out by clinical studies and experimental observations, so that care of the digestive tract is a special factor in all cases.

The recent work of Herter attributing etiologic significance to specific fermentations is very suggestive, and it will be of interest to learn further of his series of cases in which the treatment consisted in the removal of the Bacillus aerogenes capsulatus from the intestine by Colonic Irrigation." - in "Medical Record", 15 August 1908.

Local Treatment of Chronic Diarrhoea

"Dr. Samuel G. Gant stated that chronic diarrhea was of common occurrence; its progress was insidious and its results were far-reaching.

This class of patients not only suffered from exhaustion and loss of weight brought about as a result of the frequent evacuations, but also from nervous phenomena, anemia, skin eruptions, headache, and other manifestations of intestinal autointoxication and underfeeding.

In recent years, the author said, he had had unusual opportunities for studying this complaint, and his observations had led him to believe that the primary cause of chronic diarrhea was situated in the colon, and more especially in the sigmoid flexure and rectum very much more frequently than was generally supposed. Colitis was by far the most common cause of this complaint, and it might be catarrhal, tuberculous, dysenteric, syphilitic, or gonorrhoeal in character. The local treatment of colitis might be non-operative or surgical.

Non-operative measures, such as controlling the Diet, Rest, and Colonic Irrigations, should be given a fair trial before operative procedures were resorted to. The success of the non-operative treatment depended mainly upon the thoroughness with which the bowel was cleansed.

When non-operative treatment failed to cure the diarrhea after a few weeks or months trial, one of the surgical operations devised for the relief and cure of ulcerative lesions of the colon should be performed.

The following operations had been used with more or less success in the treatment of simple and ulcerative colitis inducing chronic diarrhoea:

1. Resection of the colon
2. Colostomy.
3. Appendicostomy.
4. Cecostomy, with irrigation of the small intestine.

Resection of all or a part of the colon was occasionally justifiable in the treatment of colitis, and was indicated when the functionating power of the gut was irretrievably lost as the result of exhaustion, extensive ulceration, cicatrices or multiple polyps.

Colostomy had been successfully employed many times in the treatment of chronic diarrhea due to intestinal ulceration, but the procedure had not become popular because of the difficulty experienced in making an artificial anus which would prevent the leakage of gas and faeces, and further, because of the danger which accompanied the operation for restoring the continuity of the intestine after the colitis had been cured.

Appendicostomy was the most popular of all the surgical procedures which had thus far been devised for the relief and cure of chronic diarrhea.

The speaker said that in the Boston Medical and Surgical Journal of 6 September 1906, he reported 8 cases of chronic diarrhea of different types treated by appendicostomy and through-and-through irrigation, and since that report he had

practiced the same method in 27 additional cases of ulcerative colitis.

One of his earlier cases died as a result of extensive sloughing of the caecum in the neighbourhood of the appendix; in the remaining 34 cases, the number of daily stools rapidly diminished immediately following the inauguration of through-and-through irrigation, and the general condition of the patients improved correspondingly.

Appendicostomy was not a suitable operation to employ when both an enteritis and an ulcerative colitis were present.

Under those conditions he had devised a new and effective way of irrigating the small and large intestine through the same opening, which for the want of a better name he had designated as “cecostomy”, with an arrangement for irrigating the small intestine" (Gant's operation).

The speaker described in detail the technique of this operation and presented a number of patients upon whom he had operated successfully for the relief of chronic diarrhea, either by this method or by appendicostomy.” - in “Medical Record”, 5 September 1908.

Successful Treatment of Chronic Joint Disease

“In “The Metabolism and Successful Treatment of Chronic Joint Disease”, American Journal of the Medical Sciences for October 1912, Dr Pemberton, MD,

Summing up the general facts indicated by this study, it is evident that certain joint cases which are rebellious to all other means of treatment, as proved by long trial, can be arrested by means of a proper dietary coupled, with colonic lavage. Coincident with the improvement there may occur an increased output of ethereal sulphates and an increased output of faecal bacteria.” - in “Therapeutic Gazette”, 1913.

Acute Catarrh of the Intestines (Enteritis Acuta)

"This is deemed by some authors the most frequent disease of the bowels.

Treatment: In no acute disease is the proper treatment simpler or more uniformly successful than in acute enteritis in adults or in children over 3 or 4 years old; and yet probably none is oftener wrongly treated.

The indications are:

1. First to remove promptly and thoroughly the noxious cause, instead of waiting for nature's slow efforts to accomplish this by diarrhoea.
2. And next to give as complete rest as possible to the temporarily crippled digestive system.

When you have secured these 2 conditions, nature will quickly effect a cure in the great majority of cases without other aid.

Elimination and functional rest then constitute the keynote of the treatment; and in febrile cases, rest in bed should be enforced.

The emptying of the alimentary canal can generally best be accomplished by some gentle laxative, though if the symptoms are urgent, as when there is high fever or convulsions, or other serious nervous complications, pointing to grave auto-intoxication, you should also cleanse the colon at once by a copious irrigation with a warm saline solution to which some antiseptic may be added.

When the colon is solely or chiefly involved, cleansing from below by irrigations with saline, soothing, and antiseptic solutions sometimes offers advantages, especially in proctitis, though in chronic colitis these local measures play a more important role than in the acute form.

In simple acute, non-dysenteric colitis, rest of the whole body by confinement to bed and rest, especially of the digestive organs, with elimination by laxatives, will usually

cure within a few days." - Dr Boardman Reed, MD, in "Diseases of the Stomach and Intestines", 1911.

> *"The object is to put the colon at rest, and also to facilitate through-and-through irrigation. The colon is brought up and fastened to the edges of an incision in the right side of the abdomen, and is irrigated directly through this opening. This procedure has, in some cases, cured chronic dysentery." - Dr Boardman Reed, MD, in "Diseases of the Stomach and Intestines", 1911.*

> *"The treatment of seat- or thread-worms requires the frequent irrigation of the colon with some mild disinfectant solution — it matters little what one, so that it be mild enough not to irritate the mucosa." - Dr Boardman Reed, MD, in "Diseases of the Stomach and Intestines", 1911.*

Please see the Annex:

Table Treatment of the Abdominal Viscera Through the Colon

Chapter 8

Clinical Case Reports

"**Case 57. Female. Age 28. Chronic constipation;** X-Ray showed a double loop at sigmoid. Patient thin, nervous and discouraged.

Colonic Irrigation treatments were given 3 times a week.

Third week treatments dropped to twice a week.

Twelfth week patient having regular movements. Had gained 6 pounds. Discharged 2 weeks later. One year afterwards, patient reported that she had gained 28 pounds and was feeling fine. Movements regular. Check on x-ray showed sigmoid had resumed its normal position.

Case 1451. Male. Age 30. Spastic constipation with mucus. Had been treated for 8 months by physician with no results. He was skeptical to the extreme about Colonic Irrigation but decided to take a few treatments. He improved from the first and in 3 months had gained 12 pounds.

His bowels were moving regularly and no mucus passing.

One year from date of discharge he returned to office as instructed. He reported no return of mucus and had daily movements. He was treated with Colonic Irrigation 3 times a week. Discharged at end of 25 treatments and has been free from constipation for 2 years.

Case 188. Male. Age 39. Weight 106, work sedentary. Complaint dysentery. 8 to 15 movements daily, fresh blood in several. Had been treated by several physicians with no results. Recently confined to hospital for 6 weeks where he had the best authorities on intestinal diseases.

Had heard about Colonic Irrigation and felt that it might help, everything else having failed.

He was given Colonic Irrigations 3 times a week.

In 3 months he was having regular round stools once or twice a day. Discharged in 4 months.

At the end of a year he had gained 58 pounds. At the end of 2 years he passed a life insurance examination. He has had no treatments now for 3 years.

Case 197. Male. Age 26. Bookkeeper. Complained of Chronic Constipation and Headaches. Sleepy and tired most of the time. Had taken laxative nightly for 10 years.

Depressed and felt that there was little hope of regaining his health. He was given a Colonic Irrigation and obtained much material, all in small hard balls, dark and malodorous.

Following day repeated and daily for 8 days. After the 4th week he was discharged. A year later he reported that he continued to have regular daily movements.

Case 305. Age 54. Office manager. Never troubled with constipation until 2 weeks ago. Since then has had irregular passages. Physic does not pass through in moderate doses.

Soap-suds enemas give small relief. Last 2 or 3 days has been having severe headaches. 10 years ago he had an operation for gallstones with severe infection following.

Examination revealed large mass near seat of operation in mid-transverse colon. Rectal examination was negative.

He was given Colonic Irrigation. He passed several small hard balls. He was given a Colonic Irrigation daily for several days, then 3 times a week with gratifying results. The ultraviolet lamp was used, front and back exposures following each irrigation.

In 3 weeks he was discharged and has been regular since.

Case 925. Male. Age 62. Rancher. Recently troubled with Constipation. Enema and cathartics did not accomplish satisfactory results.

Gave Colonic Irrigation and extracted very little material.

That night was called to him and found him in great pain.

Examination of rectum revealed large faecal mass lodged above rectal valves.

An ounce of olive oil was injected and a greenish mass

was expelled that was friable and malodorous.

The following day he was irrigated again and has been free from constipation since. If an obstipation should be caused by a malignancy or should there be a mechanical obstipation, the gas formed from the action of the peroxide would undoubtedly cause serious reactions.

Case 1220. Female. Age 46. Complaint: Gas and Constipation. Toxic. Muddy complexion. Headaches. Lately having rheumatism in wrists and knees.

Colonic Irrigation given 3 times a week. The first and second lavage did not pass until started by small enema 3 hours following.

The rheumatism in this patient disappeared the 3rd week.

She was treated 3 months and while her constipation improved she was never entirely free from periods when an enema was necessary to get a daily passage.

Case 314. Male. Age 36. Weight 93. Original weight 145. Complaint: Dysentery. Came on suddenly following extraction of 15 teeth. At time of first treatment, 15 to 20 bowel movements daily. Some blood. Had spent several weeks in hospital under care of excellent physicians.

Unable to determine type of infection. Rectal examination revealed severe ulcerations extending into sigmoid. Colonic Irrigation was given daily for 3 weeks.

Diet was restricted to non-irritating foods. He improved slowly and in 4 months went home and returned to office a month later for 2 more months treatment.

At the end of 7 months he was having one movement daily, stool formed and normal. No blood had passed for 2 months and he was gaining in weight.

Case 752. Female. Age 22. Constipated. Referred as Chronic Appendicitis. Operation refused. Colonic Irrigation given daily for 5 days. Second week treatments dropped to 3 times weekly and Colonic Irrigations. Improvement steady.

Discharged in 4 weeks with bowels moving daily without laxatives.

Case 725. Female. Married, Complaint: Mucous colitis, 3 years standing. Had been taking lactodextrin for past year.

Constipated, Gas. Skin oily. Daily for 5 days a Colonic Irrigation was given. Fifth week Colonic Treatments were dropped to 1 a week. She was discharged at the end of the third month with instructions to return if mucus showed or she became constipated. Before discontinuing treatments she was given 2 Colonic Irrigations with B. acidophilus implanted.

Case 65. Male. Age 65. Complaint: Constipation. Reports that he gets no return flow lately when he takes enema.

Perhaps after 1 hour or so his bowels would move freely.

He was treated by Colonic Irrigation and while solution returned freely with material during the treatment, when he sat on the commode, nothing passed. The following day he was treated again and the same experience repeated.

Nothing passed when he was on the commode, not even any of the solution. He was referred to a surgeon who later operated, and a polyp was found in the sigmoid.

Case 1217. Female. Age 10. Eczema for several years. Constipated. The skin eruption had been treated by every means available, but no permanent results obtained. This little girl was treated by Colonic Irrigation using for 5 days.

The second week was given 3 times and continued for 2 weeks. The skin cleared up the 4th week and the treatments were continued for another 6 weeks before being discharged. 6 months following her discharge her mother wrote that the girl was still free of the eczema.

Case 358. Female. Age 32. Married. Constipated. Two children. Two months pregnant. Suffered while carrying 2 children with pernicious vomiting until delivery. Thought it may be caused from constipation. Has already started vomiting with present pregnancy. With idea of helping the constipation Colonic Irrigations were given 3 times a week for 2 months. Vomiting ceased and she carried child to term without any recurrence of nausea. Constipation relieved.

Case 56. Male. Age 24. Complaint: Pain in caecum. Had been operated on for appendicitis 4 months previously, physician explaining that constant pain of that nature and symptoms due to appendicitis. Operation did not relieve pain. Colonic Irrigations were given 3 times a week, in the second month and patient discharged.

The second week this man passed in office commode mass of large balls, greenish in colour and many of them covered with layer of mucus. From that time on, his pain was not present and he had no recurrence of distress.

Pain or distress in the caecum may be caused, from the experience we have had in Colonic Irrigation, by 1 of 4 things, or all 4, viz.:

1. Faecal Impactions
2. Gas
3. Stone in Ureter
4. Appendicitis

And in rare cases; Haemorrhoids or Gallstones.

Case 723. Female. Married. Age 35. Epileptic attacks for 2 years. Periods of unconsciousness last about 20 minutes; X-Ray examination revealed incompetency of ileocecal valve and dilated caecum.

Colonic Irrigations given 3 times a week for 3 months.

Case 756. Male. Age 18. Constipated. Complaint: Epilepsy. First attack 2 years ago. Lately have been more severe. Referred for Colonic Irrigations. Treatments were given 3 times a week for 6 weeks. He had no attacks while under treatment. His physician reported a year afterwards that the young man had no recurrence of his trouble.

Case 1103. Male. Age 53. Constipated. Bleeding Haemorrhoids. Complaint: haut mal. Mentally dull; x-ray revealed incompetency of ileocecal valve, severe ptosis of transverse colon, and dilated caecum. Same treatment given as in Case 756.

He improved for first 6 weeks then appeared to slump back into his previous condition. Difficult to treat because of the bleeding haemorrhoids. Referred him to a surgeon who operated on the haemorrhoids and at the same time suspended the colon. The attacks ceased and a year from that date there had been no return.

Case 1513. Female. Married. Age 58. Not constipated. Troubled with gas in right and left side. Patient was given Colonic Irrigation once a week. In 4 weeks she was discharged. At the end of a year she reported that there had been no return of the gas distress.

Case 876. Female. Age 26. Constipated. Complaint of gas in splenic flexure. Fat. Colonic Irrigation once a week. Patient treated for 3 months. Results satisfactory.

Case 802. Male. Age 34. Complaint: Dysentery from food poisoning. Watery stools for 2 days. Weak and exhausted. Colonic Irrigation was given. Dysentery checked. One movement between treatment and appointment next day. He was given one more Colonic Irrigation. Discharged. No recurrence.

Case 162. Age 36. Dysentery from food poisoning. 3 days. Colonic Irrigation and the next day. Dysentery checked from the first day and stopped the second. No recurrence.

Case 1514. Female. Age 49. Complains of Gas Pressure affecting Heart action. Examined by a heart specialist who told her to stop all work and rest for a year; x-ray revealed short kink in transverse colon. Irrigated Colon 3 times weekly for 9 weeks. She has had each year following 5 treatments over a period of 2 weeks. Her heart action has been normal for 4 years. She has not stopped work and feels in very good health.

Case 1620. Male. Age 66. Merchant, retired. Frequent Heart Attacks caused him to consult a specialist who thoroughly examined him by all modern methods.

Following the examination the patient's wife was informed by the specialist that her husband had about 2 weeks to live.

That was 3 years ago and he still lives in very good health without any heart attacks.

Colonic Irrigations were given 3 times a week for 3 weeks, then B. Acidophilus implanted in very small amounts for 3 treatments. Olive oil was taken 3 times a day which slowed up the action of the stomach and also softened the daily bowel movements.

Case 911. Male. Age 47. Baker. Complained of passing Mucus and was extremely Constipated. Referred for x-ray examination and the report indicated a malignancy in the caecum. We refused to treat him and he took Colonic Irrigation treatments from another physician.

3 months later he reported that another x-ray was negative and that he was feeling fine, etc.

Physical therapy should be used whenever indicated in cases such as the above, in most treatments immediately following the Colonic Irrigations.

Case 345. Female. Age 13. Complained of gas and Constipation. A questionable x-ray and surgical diagnosis reported malignancy in the mid-transverse colon. She was given treatment for spastic colitis as outlined elsewhere in this manual with hope of accomplishing improvement.

In 4 months time she was passing regular formed stools, and the gas had disappeared. Another x-ray showed the colon apparently normal. She was discharged and in 2 years gave birth to a child. The attending physician reported delivery perfect. She has never had a return of her trouble.

We cite the above case to illustrate how errors are made in diagnoses.

Case; 47. Female. Age 52. Constipated with Gas distress. A large mass was discovered during the physical examination in the rectum. We called in a specialist who pronounced it probable cancer and advised operation immediately. No specimen was taken. The woman refused an operation and we gave her a month's treatment. She left suddenly for home and a year afterwards came into the office to report that she was feeling fine mid that her bowels moved regularly each day.

Case 720. Female. Age 38. Complaint: Inability to control time of stool. The ringing of door bell, catching of street car, bridge game, all caused immediate desire to defecate that was imperative. Stools highly acid. Trace of blood. Patient's physical appearance excellent. Rectal examination disclosed small ulcer above sphincter. Colonic Irrigations given 3 times a week. At the end of a month patient had not improved enough to continue treatments so she was referred to a surgeon who operated and improvement was marked following. Such cases should have a postoperative course of colonic irrigation treatments to tone and build up healthy flora following operation.

Case 225. Fem. Age 55. Unable to hold stool when least excited. Rectal examination negative. Stools strongly acid. Fermentative. Had been troubled for years with this disorder. Colon was irrigated and treatments given 3 times a week for 3 months. Improvement was immediate. 2 years from date of discharge patient had had no return of trouble.

Rectal Examination

The importance of examining the rectum cannot be too strongly urged in all colonic cases. Many times a proctitis or group of haemorrhoids will clear up during a course of colonic irrigations when congestion is relieved further up the tract. When the rectal examination discloses severe proctitis, fissure or fistula, the patient should be treated for that condition first.

In conclusion

The statements of a few of the world's famous physicians on the importance of recognizing and preventing putrefactive absorption may be of interest to the reader. Hurst claims that intestinal intoxication is due more to the abnormally long period during which the faeces are retained in the intestines and to the consequent absorption of poisons than to an increase in bacterial decomposition.

Adami showed that when a stasis occurred in the colon, especially in the caecum and ascending colon, where the contents are fluid and living bacteria most abundant, an excessive number may reach the blood.

Those that escape destruction in the liver and spleen are excreted by the kidneys and pyelitis may result.

Dr W. Sampson Hanly, FRCS, says:

"Two factors over nutrition and auto-intoxication are of outstanding importance in the aetiology of cancer."

- Dr B. R. LeRoy, MA, MD in "Practical Colonic Irrigation", 1931.

Colon As Site of Focal Infection in Chronic Pyelitis, Cystitis and Prostatitis

"Bassler showed years ago that B. coli can be quite inert in normal urine by reporting 9% of cases without genitourinary symptoms showing this organism. In fact, he pointed out that:

"Not a few apparently normal persons had a daily output of urine containing not much fewer coli bacilli than their faeces do."

Then again hemolytic, nonhemolytic and faecal streptococci may be innocent inhabitants of the intestine.

They may migrate from the bowel and as Bassler said last year, become locked up in a tooth, tonsil, gallbladder or urinary bladder, kidney or the prostate and become criminals.

This is also characteristic of many varieties of B. coli. As an example, Herter showed many years ago that the colon bacteria have practically no power to dissolve and peptonize native proteins, such as casein or native egg albumin.

But proteins in the colon may be changed by putrefactive anaerobes to peptones, and these split products affect the colon bacillus as fire-water affects an Indian.

They readily disintegrate peptones into putrefactive products, such as ammonia, volatile fatty acids, phenol, indole, skatole and hydrogen sulphide. Thus, in the presence of peptones B. coli frequently become active participants in excessive intestinal putrefaction and, from mild strains producing physiologic functions, many species are changed to pathologic types with 2 outstanding virulent groups (Herter: "The Common Bacterial Infection of the Digestive Tract", 1907) producing, on the one hand, acute symptoms and.

On the other, prolonged pathologic effects. In the urinary tract, different species of È. coli produce varying pictures of severity. Bitter and Gundel have recently shown that nonhemolyzing B. coli infection is characterized by a chronic pyelitis that requires months or years to clear up.

The B. coli "imperfectum" produces a slightly more acute course.

The hemolyzing B. coli pyelitis is characterized by acute symptoms, is of short duration and is often mistaken for appendicitis, while B. lactis-aerogenes produces an acute onset but is of chronic duration.

A pathologic aspect of the urinary tract to the colon

One is the question of autointoxication from colon stasis and the other the possibility of bacteria passing from the

bowel to the lymph and blood streams in cases in which the mucosa and muscular coats of the bowel do not show any marked pathologic change.

One of us was treating a urologic patient last winter. Every time the patient ate mussels coming from a certain locality, he complained 24 hours later of being in a crazed, murderous mood.

This feeling was entirely relieved on complete evacuation of the bowels. We found his intestinal flora changed during this frenzied state, and that the evacuations were teeming with Streptococcus viridans. We also discovered this organism in the mussels he had been eating.

Such a case seemingly refutes all 3 arguments. Bassler points out time and again that the inability to demonstrate causative substances does not alter the clinical fact of autointoxication.

He reports relieving thousands of patients by changing the intestinal flora.

Albee shows what he calls myofascitis to be due entirely to toxic absorption from the colon and has relieved hundreds of cases by changing the intestinal flora. F. H. Forman in "Short Circuiting of Colon and Removal of Same for the Treatment of Insanity", West Virginia M. J., April 1919, reports an interesting case in which insanity was cured by foreshortening the colon.

Adami and his students brought out pretty well the possibility of living bacteria actually passing into the mesenteric glands and blood stream (Reconstructed sketch from Franke's article (Ergebnisse der Chirurgie Orthopaedic 1913, p. 670) showing injected lymph channels of the right kidney capsule with their intimate relation to the appendix and caecum).

Ford, Ficker, Bierotte and others have shown that all the organs and especially the kidneys are filled with live bacteria though they have no pathologic lesion. David and McGill found live bacteria in mesenteric glands of normal dogs. The works of Ravenel, Hess, Hilgermann, Ficker and Rosenau open up a large section of literature on the passage of living bacteria from the intestine to other organs.

According to Beckmann 2/3 of patients with pyelitis and cystitis are infected with some strain of B. coli.

Enterococci and milk-souring streptococci are often found in pure culture in the urine, and, as shown by Gundel this infection comes directly from the sluggish colon. Brown reports 174 cases of B. coli pure culture out of 218 cases of pyelitis.

Concerning the specialists who have cleared conditions of the pelvis of the kidney by correcting the colon conditions, we might mention MacGowan, who did so by breaking up adhesions of the ascending colon (Reconstructed sketch from Franke's article depicting cecum and colon adjacent to kidney and injected lymph channels connecting the two.

He believes that this lymphatic arrangement definitely proves that the infection of the ascending colon can directly infect the right kidney by way of the lymphatics).

Harbin demonstrated urinary infection in acute appendicitis, Weatherbe from violent prostatic massage, and, in cases of severe labour, Gant definitely proves that urinary infections may be produced by the colon as the site of focal infections; he mentions especially pyogenic organisms. Schellberg mentions definitely in his book on the treating of genito-urinary infections the correcting of focal infection in the colon.

Cabot speaks of the possibility of the colon infections having a direct bearing on genito-urinary diseases. Lemierre in "Kidney Infection of Intestinal Origin", Les Infections Rénales D'origine Intestinale, La Medicine, March 1920, discusses sources and means of colon bacillus infection of the kidney in colon disorders.

> *"**Nephritis of Intestinal Origin:** Lemierre urges examination of the intestines as the first step in kidney disease of obscure origin. **It is useless to treat the kidney and leave the focus in the bowel unmolested.** As a rule, suppurative processes in the kidney and bladder heal quickly unless the bowel focus maintains or keeps starting them anew. If disturbances persist, concretions must be suspected. In any event, **intestinal foci are peculiarly liable to***

breed suppuration in an already damaged kidney, so that the intestines should be supervised *with special care in cases of renal lithiasis, hypertrophied prostate or stenosis of the urethra. An operation for chronic appendicitis or recurring obstruction may cure kidney lesions that had long resisted direct treatment." - in "JAMA", Vol. 74, 1920.*

W. C. K. Berlin (Pyelitis, Etiology and Pathology, with Special Reference to Internal Therapy, Medical Record, 8 April 1922), speaking of etiology, considers pelvic stagnation primary and ascending infection of the urinary tract secondary.

Mraz and a host of other writers discuss the ease with which pyelitis directly due to bowel disorders is produced in children. David and McGill have written an extensive article on the subject, quoting 55 authors who found that more than 50% of the mesenteric glands of normal dogs contain bacteria, and 33% B. coli.

Injection of large amounts of B. coli into the gastro-intestinal tract of normal dogs reproduced the bacteria in three out of eleven dogs. They conclude that the significance of the passage of intestinal organisms through normal as well as pathologic bowel wall to the mesenteric glands cannot be overlooked.

While it is true that these organisms reach the blood stream in but relatively small numbers, it is nevertheless possible that increased virulence of the organisms, lowered resistance of the host as well as actual lesions of the bowel wall would greatly increase this number of organisms reaching the blood stream.

A clear illustration of the lowering of resistance facilitating the passage of bacteria through the intestinal wall is the experimental work of Price-Jones feeding Gaertner's Bacillus to white rats.

In normal health this feeding did not produce any ill effects; but, if the rats were greatly fatigued, the bacilli passed readily through the intestinal wall and produced markedly increased illness and mortality.

Bitter and Gundel, describing the colon bacillus as the cause of cystopyelitis, found similarity of agglutination in 72 cases with strains from the faeces.

Herrold reported nine cases of urinary infections, in seven of which identical organisms were found by agglutination in the faeces, and recently Engel and Olin, in cases of achylia gastrica and pernicious anaemia with colon bacilli in the unusual position of duodenum and stomach, found identical colon bacillus agglutinations in the blood serum.

Our series of pyelitis cases is similar to the case of a physician, Dr. Sack in Germany, who treated himself.

He had a severe acute pyelitis due to colon bacillus and cured himself by taking enemas 40 cm. into the bowel.

In these cases infections were directly traced to the colon; not only did the colon organisms show a great preponderance of gram-negative bacteria, mostly anaerobes in a severe state of putrefaction, but also in 2/3 of the cases the colon bacillus was the cause of urethritis; the particular organism from the urethra agglutinated with a colon one of the predominating bacilli of the intestinal flora.

This colon flare-up in turn is due to 1 of 3 etiologic factors, singly or in combination:

1. Infection in accessory organs, teeth, tonsils, sinuses or bronchi; McFarlane (Role of Focal Infection in Disease of Urinary Tract, Illinois Medical Journal Vol. 52, July 1927) showed that 80% of nonspecific urinary tract infections have this etiological factor;
2. A great state of putrefaction and diarrhoea or constipation;
3. An acute or chronic colitis.

A slight colon flare-up may throw the patient into a serious case of urinary infection.

Numerous investigators have shown that, in just such cases as these, bacteria readily pass through the intestinal wall into the lymph and blood stream to the kidneys and other genito-urinary organs.

It takes only a slight increase of toxicity in borderline cases for the patient to become seriously distressed or sick; but, as we said before, this primary toxicity cannot be measured in the laboratory for we have no known tests to detect the minute quantities of toxins.

The pathologic colon plays a direct etiologic part in both acute and chronic nongonorrheal genitourinary infections.

If there are at the same time other sites of focal infection, such as in the head, throat, lungs or gallbladder, these conditions aggravate the colon condition.

Identical bacteria found in the abscessed teeth will be found teeming in the intestinal flora and probably will be the offending organisms in the nongonorrheal genito-urinary infection.

(See Table I)

"Our series of 22 cases represents cases in which practically every known urologic remedy had been tried and had failed. From all indications the existence of the focus was in the colon, and by treatment of the colon and changing of the flora, a cure was produced in the genito-urinary tract after other means had failed." - Dr. James E. Potter, MD

Treatment

1. Diet: There is a mass of evidence at hand with experimental work on animals as well as on man and our work with hundreds of patients to prove the efficacy of diet in directly aiding to change the intestinal flora and helping to eradicate the pathologic condition of the colon.

2. Colonie Irrigations: As advised by Albee, we have ordered from 8 to 12 high colonic medicated irrigations given daily.

3. Implantation: Following the recommendation of Weinstein, Bassler and Albee, the implantation was ordered

as follows: 120 cc. of B. coli culture combined with an equal amount of heated dextrin is instilled through a small glass funnel attached to the catheter. The buttocks are well elevated during the treatment and the patient is allowed to rest 15 or 20 minutes following the implantation. This is one of the most efficacious treatments in aiding to change the intestinal flora from a pathologic to a therapeutic count.

4. Acidophilus: It has been definitely shown that acidophilus milk given by mouth with a proper diet, in many cases, will change, temporarily at least, the colon flora.

Cheplin and others have demonstrated, however that the potency of the acidophilus depends on the particular strain selected as well as the method of marketing the product.

Editorials in The Journal have clearly pointed out that, when the American Medical Association Laboratory carefully examined a number of proprietary products of acidophilus, only a few of the preparations contained the potency and number of viable bacteria per cubic centimeter that the respective firms represented.

Kendall and his co-workers, Bassler and Alvarez, and many others have shown that the anaerobes, especially the gas bacillus of Welch, fail to develop in colon faeces that have even a slight acid reaction to lactic acid, the fermentative product of acidophilus.

We have found that, when no other treatment is given except diet regulation, it requires from 4 to 6 weeks, taking from 10 to 16 ounces (300 to 475 cc.) of strong viable cultures of acidophilus a day by mouth, to change the intestinal flora markedly." - Dr F. H. Redewill, MD, Dr J. E. Potter, MD Lieutenant Commander, Medical Corps, U.S. Navy, Dr Harry A. Garrison, MD Captain, Medical Corps, U.S. Navy Washingon, D.C., in "JAMA", 8 March 1930.

Rectal Injections of Physiologic Salt Solution

"Dr. Warman in Ther. Monatsh., No. 9, 1893, reports: These injections are reported to have been made with excellent result by the author in a number of severe post-partum haemorrhages.

This enteroclysis is much easier and simpler than hypodermatic and especially intravenous salt-water infusions, with which absolute asepsis is indispensable.

The method is considered also preferable to hypodermatic infusions because the absorbent surface of the rectum is much larger, and thus allows absorption to proceed much more rapidly. The author believes that absorption is accomplished in at most minutes, because rigour (indicative of increase of body temperature), improvement of pulse, respiration, and general condition, always appear in this time.

It is worthy of note that the amelioration of symptoms occurred more quickly when salt solution of the temperature of the room was employed.

The author thinks that this is due to a reflex irritation of the vasomotors by the cool water.

He accounts for the favourable effect of the salt injections by the hemostatic property of salt.

The author never saw an eccoprotic effect of enteroclysis the injection, he says, must be made slowly under slight pressure, and in the left lateral position.

The author is reported to have supplied enteroclysis in 28 cases with great success, 27 of which concerned severe haemorrhages after normal deliveries and after miscarriages.

The method said to be indicated also in haemorrhage from other organs, excepting intestinal bleeding in typhoid fever, in which the ulcer-scabs already formed might be washed away.

The method has also been successfully employed in a case of grave diarrhoea with vomiting, in consequence of the ingestion of vitiated victuals." - in "American Medico-Surgical Bulletin", 15 January 1894.

The Colon as A Focus of Infection

"There are many colons, however, in which the sigmoid has lost its tone, thus allowing the feces to pass over into the absorptive area and thus defeating its own purpose.

It must be remembered that the function of the physician in correcting a colonic stasis is to establish a regular and natural peristaltic action, so that there will be no recrudescence of the toxic condition.

Since the peristaltic rhythm is effected through muscles which are controlled through the vagus and sympathetic nerve endings, which are in turn deadened because of the toxic stagnation, the operator must, if possible, exercise the colon in the normal manner in order that tone will he recaptured and nerves restored.

The patient empties the colon which can usually be done in 15 to 25 minutes. It is surprising, indeed, to the uninitiated to view the contents that this operation brings forth. We have definite clinical evidence that in some cases matter emerges from the colon which has lain there for months and contributed to the toxicity of the blood stream.

Case No. 1. - Female, aged 40. Patient complained of chronic constipation over a period of 12 years. Appetite poor. Nervous and tired easily. Complexion muddy and tongue coated, breath foul, marked tenderness over lower right quadrant. Had suffered from attacks of severe pain in right side, accompanied by nausea.

Attacks resembled acute appendicitis, but appendix had been removed twelve years before.

After 3 cecal irrigations, pain and tenderness disappeared and have not returned. Appetite returned to normal. In 3 months the complexion cleared.

She was given 30 treatments altogether and a period of more than a year elapsed from the date that she first visited me. Now takes occasional treatment to replenish acidophilus supply in colon.

Case No. 2. - Male, aged 49. For past year had suffered attacks of severe upper abdominal pain. They occurred from one to three weeks apart and were sufficiently severe to cause him to lose consciousness. He had hypotension, tired easily, was constipated, and took cathartics regularly.

Glycosuria trace, blood-sugar slightly above normal.

X-ray negative, except a very spastic transverse colon.

Bacteriology of cecal content: B. Welchii many. Gram positive, diplococci moderate, a few streptococci and considerable mucus.

After a course of colonic therapy, the blood and urine returned to normalcy. It has been nearly 2 years since patient first visited office, and there has been no recurrence of symptoms. Patient's bowels move regularly and without cathartics.

Case No. 3. - Female, aged 65. For past year and a half, she passed 3 to 10 bowel movements daily, consisting of light offensive material, accompanied by considerable pain and distention. Suffered from palpitation, dizziness and was very nervous. Lost 20 pounds in last 3 months.

Complexion muddy, abdomen distended and very tender, especially over lower right quadrant. Sigmoidoscopic examination showed mucosa fiery red and covered with a mucus discharge. Contents of colon negative excepting for putrefactive bacteria. X-ray disclosed hypermotility of entire tract, excepting the cecum which was low, large and mobile. Blood picture was that of a moderate secondary anemia.

At commencement of treatment, patient was in bed. At the end of one week she was able to be up during the daytime. In 1 month she was free from pain, appetite better, complexion improved, less nervous and passing 1 or 2 formed stools daily.

Case No. 4. - Female, aged 42. Had taken cathartics for several years; is very nervous, becomes melancholic and depressed, sleeps poorly, has many headaches, has attacks of dizziness, tongue coated, suffers much pain and distress in abdomen, especially in lower right quadrant.

Appendix and tonsils were removed 6 years ago.

Examination revealed a moderate right-sided distention, with tenderness and dullness in lower right quadrant.

Colonic Therapy completely relieved her of her symptoms.

She has remained well for the past 6 months, when she was last treated.

This case is interesting because she came in with a diagnosis of neurasthenia." - Dr Lynn J. Walker, MD, in "International Journal of Medicine and Surgery", June 1931.

Please see in Annex: Clinical Case Reports

Chapter 9

The Delay of Old Age and the Alleviation of Senility

"I ask your attention to the question of the practicability of keeping the various functions of the organism, of preserving the physical and intellectual powers, of delaying the onset of degeneration as much as may be, of developing a race less prone to early decay.

Then, besides this, I wish you to consider the feasibility of so managing the senile when once their degeneration has arrived, that many of their miseries may be avoided and the remainder lessened in degree.

Having granted that age is inevitable, the average man would seem to have become indifferent to his penalty for living, and, if complainingly, he none the less heedlessly, allows his forces to ebb away prematurely. With some, the whole of existence seems to be spent in infancy, adolescence and senility.

There is no period in which one can say:

"There is full, healthy maturity"

When examined this early senility is found to result from pathologic processes, and there the observation ends as though it were conclusive. But the event is not thus to be disposed of, for, according to our best standards, senile changes are always pathologic, and, therefore, the question of prematurity rests on some pathologic reason for cause, or else upon inherent weakness in human vitality.

We are in the habit of speaking and thinking of senility as something separate and apart from disease; as a result, not sufficient attention has been given to the question of prevention of age.

On this subject one cannot escape the bold work and

bolder thought of Metchnikoff, and I quote at once his description of the degenerations of age:

> *"In senile atrophy the same condition is always present: the atrophy of the higher and specific cells of the tissue and their replacement by hypertrophied connective tissue."*

It is this same process on which every teacher of medicine constantly harps in discussing disease, the disappearance of the parenchyma and the increase of the stroma.

One need not dwell on the theory of Metchnikoff as to the rôle of the phagocytes in the process; for the moment it is enough to know and to recognize that senile atrophy is pathologic and that, essentially, old age is disease.

Already we possess some knowledge of how to defer age, but this information is not generally insisted on as a guide in living.

We frequently allude to measures of prevention, but we do not reduce them to a system which can be taught to the student and to society. If we are further to lengthen the probational study period in medicine, it will be wise to give the matter of deferred old age very careful consideration.

If the subject were studied seriously, we would foresee a tremendous improvement in the type of humanity, and the readjustment of many habits, customs, social questions along altogether new lines.

At any rate it will be admitted that middle age could be considerably prolonged and the infirmities of old age largely mitigated if we could eliminate from the equation that faulty cell metabolism.

The trend of modern thought is toward the development of the individual. Our researches in therapeutics, dietetics, immunity, gymnastics, all alike are directed toward the betterment of the individual by making life possible to many who would otherwise perish, comfortable to many who would otherwise survive in misery; results in prolonging life.

Let us now consider what may be accomplished in the way of postponing age by the reasonable treatment of even

the poor material that comes to us. Undoubtedly the question is as broad as the whole subject of personal hygiene and general therapeutics, and so, for the most part, must be passed; there are, however, some aspects of the subject which deserve special consideration.

One of these is the improvement in the nutrition of the aged as the result of good teeth. While all recognize the comfort and convenience which we owe to the dentists, it is doubtful if we fully appreciate how much they have contributed to good health and longevity.

Perhaps no one factor is so important in maintaining courage and health in old people as the creation and continuance of some keen interest in life, and this interest, even in the otherwise enfeebled, may be kept up by means of useful eyes. Now comes the timeworn but neglected subject of arterial disease.

Too often our attention is for the first time attracted to arteriosclerosis by the appearance of fibroid or fatty degeneration, exhibiting itself in the figure, form and viscera of the individual.

Even after these later changes appear measures may be adopted to stay the march of the process, but how much better it would be to anticipate it.

For instance, **by noting the high and rising blood pressure and the physical signs of cardiac strain, by estimating the decline in urinary solids and the rise in the urotoxic unit, by measuring the decline in respiratory capacity, or by detecting the falling off in cutaneous secretion and the loss of the pliability and softness of the skin, we may make ourselves aware that vascular degeneration is progressing.**

Heedless of these earlier manifestations we shall soon awake to the advent of the state which Sir James Paget has so marvellously described (Paget's disease of bone or osteitis deformans a condition involving cellular remodelling and deformity of bones).

In the earlier steps of arteriosclerosis, if intelligent study be given to the individual, to his habits of life, to his excesses and to his deficiencies, very much can be done, and, by

thoughtful men, is done, to delay arterial changes and to restore functional activity.

May I emphasize the importance of judging and correcting the disturbed balance between assimilation and waste the anabolic and katabolic processes?

The facts are so well understood that one hesitates to mention them, and yet just here there is so much neglect of precious opportunity.

There are successful methods of lessening the extent of auto-intoxication and of widening the field for the play of nutritional processes.

This is so commonplace that we neglect it. Middle age often brings luxury and at the same period the contracting arteries narrow the field of physiologic activities.

The circumstances of life and the taste of the man are for indulgence in appetite or for excess in undertakings, while the limitations of the organism are increased. The tendencies are thus in opposite directions, and, with Münsterberg we ask: "How can they keep together who are going different ways?"

Ultimately, they must separate, of course, but temporarily they may keep company if we help to preserve harmony between them. There is abundant proof that even advanced arteriosclerosis may be so far modified as to delay the oncoming degeneration and to admit of happy usefulness, but the victim must be content with moderation.

Advanced arteriosclerosis is too generally neglected, and intoxications of one kind or another are for the most part responsible for it. Our prophylactic and curative measures are readily understood.

It is well known that the relatively great fatality of Pneumonia and other Acute Diseases is explained by the greater Toxaemia which exists late in life.

Auto-intoxication increases the Blood Pressure, and induces prematurely the fatal events of Cerebral, Cardiac and Renal Diseases.

Almost as deplorable as these are, the conditions of unnatural excitement, confusion, and depression from which many people unnecessarily suffer in early old age.

Still further there may be found in vascular disease the source of much severe pain from which old people suffer.

This pain is often referable to the aorta, at times to those forms of aortitis which Clifford Allbutt has described, and also to aortitis and peri-aortitis of the abdomen, recently so well set forth by Teissier of Lyons.

The latter has also shown that the pain can be ameliorated, the progress of the disease stayed and even great improvement induced by rational treatment.

Aortitis (vasculitis, inflammation of the blood vessels) and peri-aortitis often greatly interfere with the flow of blood into the branches of the abdominal aorta, and as a result the organs supplied by these branches suffer special degeneration.

In middle age and later life, intractable diseases of the stomach, intestine, kidneys, and other organs could be dealt with much more successfully, and comfortable longevity secured, if more attention were devoted to this pathology.

There remains for brief consideration the question of what can be done to make old age more tolerable; in other words, to remove it to a physiologic basis.

We find, on close consideration, that most of the derangements from which the aged suffer can be classified as belonging distinctly to pathology, but I am afraid there exists a tendency among us to dismiss these matters as necessary corollaries of senility, without giving them that careful consideration which similar processes receive in younger patients.

To a few the diseases of old age have a peculiar charm, and these **few who give senile diseases special study seem to agree that the complaints of the aged arise for the most part from toxic causes. Even the threadbare question of arteriosclerosis falls to a large extent under this head.**

There is good reason for believing that this toxic state which underlies the decadence of senility takes its origin for the most part in the colon.

Metchnikoff supports the view that mammals have developed a large colon for the purpose of storing the products of digestion, and that man has inherited an

enormous colon at the expense of his longevity.

This organ harbours an immense number of bacteria leading to fermentations, putrefactions, and the production of alkaloids, fatty acids and toxins which man has to combat for the length of his mortal days.

While vitality is young and vigorous, the combat is not so unequal, but with failing powers auto-intoxication prevails in the contest between the internal resisting powers of the organism and the toxic adversary made potent by inheritance.

Unfortunately, the degeneration of age first produces functional insufficiency of the organs of elimination, then their degeneration, and as a result we find the skin, kidneys, lungs, liver, incompetent in each individual overtaken by years. It is somewhat remarkable that facts so well understood as these do not receive more attention.

There are few textbooks, there is little teaching devoted to the pathology and right management of senile disease, and yet experience teaches that few patients respond more satisfactorily than do the aged if their cases are approached with the principles in mind which are here set forth. It is not merely a question of dilatation of the colon, nor of any special defect of the organ; even in the absence of these, the source of auto-intoxication exists and becomes important because of the failure of the skin and other emunctories which, earlier in life, are relatively sufficient.

The indications are obvious. In addition to the usual measures for improving the general circulation, old people are benefited by systematic colonic lavage, stimulating baths with superficial massage prescribed pulmonary gymnastics and an abundant drinking of pure water.

It is the almost universal neglect of these matters which has made it seem to me a subject of sufficient importance to call to your attention in a general address.

There is something inspiring about youth which gives an incentive to our care of the diseases of childhood and adolescence, but there is something benignant in studying the problems that lead to the postponement of age and to the alleviation of the trials of senility.

Old age is repulsive when it is pathologic, but is beautiful when it is physiologic, and it would appear as a fitting theme for the consideration of this great body at its meeting in this new land of the setting sun." - Dr Charles G. Stockton, MD in Oration on Medicine at the 56th annual session of the American Medical Association at Portland, Oregon, 11-14 July, 1905, in "Journal of the American Medical Association", 15 July 1905.

"Intestinal disturbances are of infinitely more direct importance than gastric in the causation of arteriosclerosis. *It is of the utmost importance, when possible, that of these irregularities any and all which make for the production of intestinal toxaemia be eradicated. Intestinal antiseptics are here comparatively useless, except for the most temporary relief. Once the condition has become developed, in which not only bacterial decomposition is excessive, but also portal engorgement, when the overworked liver-cells can no longer continue to return through the biliary channels their repeatedly-absorbed portal vein poisons, the immediate treatment indicated is removal by thoroughly clearing out the intestinal tract either with castor oil or cathartic followed by saline. This temporary relief and useful beginning should be immediately followed by irrigation of the colon. The intestinal decomposition decreases with improved state of the mucosa and cessation of abnormal absorption or toxaemia.* ***The colon should be thoroughly irrigated, at first daily, later less frequently, with at least three quarts of normal salt solution."*** *- Dr Byron Sprague Price, MD in "The Diagnosis and Treatment of Arteriosclerosis", International Clinics, 1915.*

Chapter 10

Irritable Bowel Syndrome (IBS)

"Colon Irrigation - Last, and most important, intestinal Irrigation or hydrostatic stimulation, to remove stagnant debris, stretch adhesions, exercise the colon and promote normal drainage; proper antisepsis, to destroy pathologic bacteria; instillation of L. acidophilus or sterile lactose, to change the flora are paramount in the treatment of "mucous colitis".

Six to 8 treatments, states Dr Soper, are usually sufficient to overcome spasticity.

After spending several days in cleansing, exercising and antiseptizing the colon, we proceed to change the intestinal flora.

Various oral methods are used, but I have found the colonic route the most efficient.

Instead of passing B. acidophilus and lactose through 20 or more feet of stomach and small intestine, subjecting it to various changes, and finally depositing it, greatly diminished, into a putrid colon, we prepare the field, remove the stagnant fecal matter, and plant our seed and culture food (lactose) directly where it is needed; 3 to 6 ounces (90 to 180 gm.) of sterile lactose in solution, plus 1 to 6 ounces (30 to 180 cc.) of broth cultures of B. acidophilus, are injected, dally for one week, and then in decreasing dosage on alternating days thereafter.

Fecal examinations are made to note the changes increasing or decreasing the dosage accordingly.

At first the patient complains of excessive gas, but this gradually diminishes and disappears entirely when the flora is changed.

Of late we are carrying on some experimental work with B. coli implantations to change the intestinal flora.

More will be reported on this, later.

In this manner the most stubborn offender in the vicious cycle **(the stagnant, Toxic Colon)** is normalized.

By adding any of the necessary aforementioned therapy, to correct other portions of the cycle, an excellent result will be accomplished.

"Mucous colitis" is the product of a vicious cycle which originates in a putrefactive, toxin-forming colon.

These toxins affect the endocrine system which, in turn, affect the vegetative nervous system, producing a condition known as vagotonia.

The resulting vagotonia produces an irritable bowel, with excessive mucous secretion.

The mucus thus formed is not inflammatory in nature and the name "mucous colitis" is a misnomer.

Therapy, therefore, should consist of correcting the vagotonia which is so frequently present; removing all causes for worry, anxiety, etc.; building up the resistance with general health measures and diet; administering necessary endocrine products; **and, most important of all, eradicating the worst offender, intestinal stasis, by changing the intestinal flora."** - Dr Manuel G. Spiesman,MD, in "Bulletin of Ambulant Proctology", November 1930.

"In any event, the "buttonhole operation", and the Injection of P-O, are only palliative measures to control the symptoms, and if used without a proper diet, would probably never affect a cure.

The underlying cause, which is colitis, proctitis and an acid condition of the bowel content, causing an acid secretion, is the underlying cause which must be gotten rid of by proper diet and colonic irrigations.

This is for the typical case of puritus ani with its excoriations, and so forth. Many cases of itching rectum, of course, are not the typical pruritus ani, but may be caused by cryptitis, comedones, skin tags, etc., each of which, would require its own particular treatment.

Many cases have been cured more quickly by diet and Colonic Irrigations, but it takes a longer time and the symptoms are not under control in the typical pruritus, unless the injection method or something similar is used." - Dr E. F. Pellette, MD, in "Bulletin of Ambulant Proctology", November 1930.

Mucous Colitis (IBS)

"Mucous colitis is the product of a vicious circle which is caused by an inherited or acquired endocrine imbalance and aggravated by a putrefactive toxin-forming colon.

Toxins pass through the colonic mucosa, then through the liver and finally into the circulation, producing changes in the glands of internal secretion, which in turn affect the vegetative nervous system producing a condition known as vagotonia.

The resulting vagotonia produces an irritable bowel with excessive mucous secretion.

Therapy should be directed at all phases of the vicious circle, colon, liver, endocrines and vegetative nervous system.

If the results are not forthcoming, one should search carefully for associated pathology such as gall bladder disease, peptic ulcer, adhesions with chronic obstruction, carcinoma, arteriosclerosis of the mesentery, infected teeth, tonsils, anal crypts, sinuses, prostate, adnexa, etc.

The active treatment of mucous colitis consists of Intestinal Lavage". - Dr Manuel G. Spiesman, MD, in "The Bulletin of Ambulant Proctology", December 1932.

"Treatment and Results: We began to give her Colonic Irrigations daily and cultures of the Bulgarian bacillus, as an examination of the feces showed evidence of intestinal intoxication and a streptococcus was isolated that belonged to the viridans group and was present in much larger amounts than normal.

She was given an injection of antistreptococcus serum and had a severe reaction, developing a rash that looked like the rash in serum disease, so it was not continued.

After this eliminative treatment was given for some time she seemed to improve gradually and was able to leave the hospital in April 1916, 5 months after admission.

She went south the following winter and since a short time after leaving the hospital she has been entirely normal, and is living with her mother in perfect harmony and has had no return of her psychoses." - Dr Henry A. Cotton, MD, in "The Role of Focal Infections in the Psychoses", New York Medical Journal, 15 March 1919.

> *"A case of moderate virulency and without complications, usually clears up within 6 to 8 weeks under the routine* ***Treatment of Irrigations, Injections [enemas] and the patient is discharged as cured."*** *- Dr Philip Goldfader, MD, in "Diagnosis and* ***Treatment of Chronic Gonorrhea*** *in the Male", New York Medical Journal, 19 April 1919.*

"Treatment - It is important in treating these cases to secure the confidence of the patient and to go into his sexual history carefully.

It is necessary to explain that his condition can be cured; that he is not impotent nor likely to become so and that the mental disturbance, of which he complains, is due to a local condition.

Correct his wrong ideas of sexual conditions; explain that coitus reservatus is an abnormal procedure and must be stopped.

The first indication is to improve his general condition by means of diet and exercise.

Constipation is generally a prominent symptom and must be corrected. All sources of neurotic excitement should the interdicted on account of their effect in producing congestion of the prostate.

Under the heading of local treatment we speak of measures which have a direct action on the prostate.

Sitz baths, of hot water, for 15 minutes duration once a day have the effect of improving the diseased organ.

Irrigation of the rectum with alternating hot and cold water by means of a Kemp tube is often beneficial especially in patients with marked mental symptoms.

The most useful means of affecting the prostate directly is by massage through the rectum and we can in this way express the contents of the tubular glands." - Dr Joseph Harold Friedman, MD, in "Chronic Prostatitis, Gonorrheal and Nongonorrheal", New York Medical Journal, 19 April 1919.

The Treatment of Kidneys

"Hot Colon Irrigations are a quick, safe and powerful means to stimulate the kidneys into action.

This method has a more powerful diuretic action than any drug, especially if a 500ml of hot water is retained in the cecum after the cleansing.

Ten to 20 ounces of warm or hot solution can be retained in the colon; all of this will be absorbed into the blood stream.

We find it a splendid way to treat nephritis; ridding the organism of toxic wastes and the source of toxemia, stimulating the detoxication organs, as well as obtaining marked diuretic effect by the hot irrigations.

In the case of an acid urine, hot alkaline solutions, such as can be made with Citrocarbonate, Alka-Sal, and all similar preparations, are placed in and retained in the cecum.

The alkaline procedure is continued and checked according to urinalysis with the object of keeping the urine slightly alkaline.

Where the renal output is greatly decreased and there are signs of edema present, we are careful not to permit the absorption of too much fluid.

In these cases we irrigate with hot concentrated solutions of magnesium sulphate, whose osmotic density prevents it

from being absorbed from the bowel, yet removes the toxic wastes and depletes the body tissues.

This method is an ideal method in any edematous condition.

In pyelitis cases 3 or 4 ounces of Hexylresorcinol diluted with warm water qs ounces 8, is planted in the cecum after cleansing and before taking the tube out.

This drug is nontoxic and when absorbed clears up our pyelitis cases very quickly." - Dr C. B. Lamp, MD, Monongahela, Pa, in "American Journal of Physical Therapy", July, 1929.

Migraines

"Lessening the volume of bacteria in the feces in the colon will wonderfully enliven the whole system, clear the brain and lessen the work of the eliminative organs.

First aid to a toxic headache is a clearing out of the bowels by means of a High Enema." - Dr A. W. Herr, MD, Cleveland, Ohio, in "Western Medical Times", September 1919.

Lobar Pneumonia

"Lobar Pneumonia is an acute infectious disease characterized by a massive inflammatory exudate into one or more lobes of the lung.

The dominant clinical features are chill, fever, pain in the chest (or side) and cough, with the expectoration of viscid, rusty appearing sputum.

In about 96% of cases this form of the disease is caused by the Pneumococcus.

In some persistent cases a High Colonic Irrigation will prove effective." - in "Clinical Aspects of Pneumococcus Pneumonia", New York State Journal of Medicine, 1 January 1937.

Table 1

Cases	Number Corpuscles								Haemoglobin	
	Red				White					
	Before	After	Total gain	%	Before	After	Total Gain	%	Before	After
J. S.	5860000	590230	42000	0.2	9660	11655	1995 loss	20 loss	70	70.5
C.H.D.	4890000	4910000	20000	0.3	6038	5880	142	27	45	52.5
R.E.H.	5670000	6900000	1230000	22	6195	7245	1050	17	67	75
J.L.C.	4850000	5230000	380000	8	9345	9450	105	1	70	75
M.P.R.	4660000	4840000	18000	40	5586	6636	1050	17	65	75
R.S.W.	4630000	5300000	670000	14	6370	9450	3080	48	70	75 (+)
E.J.W.	5840000	6872000	32000 loss	6 loss	5812	10756	4914 loss	89 loss	70	80
F.G. Temp. 50 C	6880000	6650000	230000 loss	5 loss	9365	8400	965	10	70	75
J.T. Temp. 50 C	6540000	6070000	470000	7	7035	7770	735	10	70	65 (+)

Table 6

Principal Symptoms of Disease	Before Treatment			After Treatment		
	Amount Urine 24 h	% Urea	Total Urea Grams	Amount Urine 24 h	% Urea	Total Urea Grams
Acute Renal Hyperaemia	300	3	9	1200	1.5	18
Catarrhal Jaundice Icterus	1050	1	10.5	1550	1.9	29.45
Chronic Gastritis, Dilatation, Renal Hyperaemia	650	1.8	11.7	1500	1.2	18
Hepatic Cirrhosis, Hypergastritis, Interstitial Chron	750	2	15	1020	2.5	25.62
Gastritis Chron	1240	1.1	13.64	1440	2.1	30.24
Chronic Diarrhoea	675	2.4	16.2	1020	2.9	29.58
Gastric Myasthenia, Splanchnic Congestion	1140	1.8	20.52	1325	2.7	35.27
Gastric Dilatation	1009	1	10.09	1125	1.85	20.81
Gastritis Glandularis Chronica, Splanchnic Congestion	1150	1.9	21.85	1400	2.5	35
"Atrophic" Cirrhosis Liver	790	1.6	12.64	950	2.1	19.95

Table I

Case	Infection	Time of treatment Previously by other Physicians	New Treatment Days Treated Cured	Number of Colonic Irrigations	B. Coli Culture 4 Oz., Dextrose Implant	Days Treatment of Acidophilus Milk 1.5%
6	Cystitis	90 days	60 days	10	10	45
7	Cystitis	15 days	55 days	10	10	40
8	Cystitis	3 ½ months	85 days	12	10	45
9	Cystitis	6 months	60 days	10	8	40

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